Administrative County of Middlesex.

ANNUAL REPORT

OF THE

COUNTY MEDICAL OFFICER OF HEALTH

FOR THE

YEAR 1929.

LONDON:
HARRISON AND SONS, LTD., ST. MARTIN'S LANE, W.C. 2.
Printers in Ordinary to His Majesty.

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[No. 699]

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TO THE CHAIRMAN AND MEMBERS OF THE COUNTY COUNCIL OF MIDDLESEX.

PUBLIC HEALTH DEPARTMENT,
10 GREAT GEORGE STREET,
WESTMINSTER, S.W.1.
September, 1930.

SIR, MY LORD, LADIES AND GENTLEMEN,

I have the honour to submit for your consideration my Annual Report on the Public Health of the County during 1929. This report falls into the category of "ordinary" reports, as laid down by the Ministry of Health, and accordingly is somewhat brief in character, but nevertheless contains much that is of interest from the view-point of the physical well-being of the inhabitants of the County.

The effects of the wide-spread epidemic of influenza which occurred early in the year are reflected in the increased death rate in the County, and the ever-increasing prevalence of smallpox, albeit mild in character, cannot be regarded with indifference. On the other hand, the diminution in the maternal mortality rate, as compared with that of the preceding year, is satisfactory so far as it goes, but a much greater reduction must take place before the position can be viewed with equanimity.

The report on the first year's working of the Council's scheme for the systematic veterinary inspection of milk cows, which appears on pages 19 to 22, is worthy of study, the results shown therein affording ample justification of the Council's decision to undertake this valuable public health measure.

From the public health standpoint, the year 1929 will be memorable for all time as the year in which the Local Government Act, 1929, received the Royal Assent. This Act contains many provisions affecting the organisation and administration of public health, and places greatly increased responsibilities upon County Councils.

Undoubtedly the most far-reaching in its results is the provision which abolishes Boards of Guardians and transfers to County Councils and County Borough Councils the great majority of the functions previously carried out by the Guardians. Included amongst these are the medical

organisation and arrangements for the institutional and domiciliary care of the sick poor, and there can be no doubt that this transference should lead to a unification of health services which, until recently, appeared almost impossible of achievement. The Act goes much farther than merely to transfer functions from one body to another in that it encourages County Councils, so far as possible, to remove from the Poor Law the services for the relief of mental and physical defect and disease and for the care of mothers, infants and children, and to administer these under powers conferred by other Acts.

The County Council and its officers devoted a very large amount of time to the consideration of the Act, and in accordance with Section 5 prepared a scheme of the administrative arrangements proposed to be made for discharging the functions transferred under Part I of the Act. It was apparent on careful investigation that the organisation and the institutions, which had been provided by the existing Boards of Guardians and which would be transferred to the County Council, were not sufficiently adequate to enable the County Council immediately to undertake to provide under other Acts all the assistance which the Local Government Act, 1929, empowered them to do. The Council, however, decided to embody as a part of their scheme a declaration of their intention to do so as soon as possible. The terms of this declaration are as follows :—

DECLARATION AS TO THE PROVISION OF CERTAIN ASSISTANCE OTHERWISE THAN BY WAY OF POOR RELIEF.

2.—(1) Pursuant to the provisions of Section 5 of the Act, the Council has had regard to the desirability of securing that as soon as circumstances permit all assistance which can lawfully be provided otherwise than by way of Poor Relief shall be so provided.

(2) It is the intention of the Council, as soon as practicable (*a*) to secure that all such assistance shall be provided otherwise than by way of Poor Relief; (*b*) to take the necessary steps to ensure that any assistance which can be provided either by way of

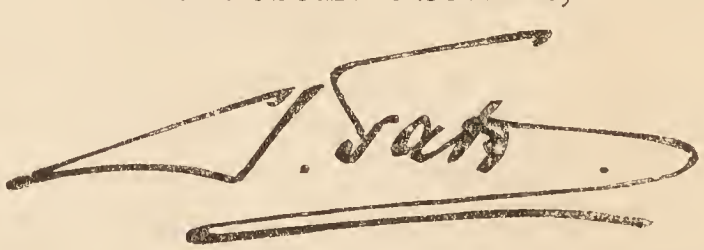
Poor Relief or by virtue of any of the Specials Acts shall be provided by virtue of the appropriate Act and not by way of Poor Relief.

(3) It is hereby declared that all domiciliary assistance to blind persons shall be provided exclusively by virtue of the Blind Persons Act, 1920, and not by way of Poor Relief.

Apart from the transfer to the County Council of the responsibilities of Boards of Guardians, many other important health provisions are contained in the Act. These include the duty of County Councils to survey the isolation hospital provision in the County and to prepare a scheme to ensure that adequate facilities for the isolation of cases of infectious disease are available in all districts, the duty to formulate arrangements whereby every Medical Officer of Health subsequently appointed for a district shall be restricted from engaging in private practice, power to contribute towards the provision and maintenance of sewers and sewage disposal works, the supply of water, &c., but all these matters have received or will receive suitable consideration by the appropriate Committees of the County Council, and the preface to my Annual Report is hardly the place for their detailed discussion.

The very large amount of new work which the Local Government Act has placed upon the Public Health Department of the County Council and upon me, personally, must be my apology for the somewhat belated appearance of this Annual Report, and I desire to place on record my appreciation of the invaluable assistance I have received from my Deputy, Dr. Macaulay, and my Assistant, Dr. Perkins, who have been largely responsible for the preparation of the detailed matter contained therein.

I have the honour to be,
Your obedient Servant,



County Medical Officer.

Staff.

WHOLE-TIME OFFICERS.

County Medical Officer of Health and School Medical Officer.

J. Tate, M.R.C.S., L.R.C.P., D.P.H.

Deputy County Medical Officer of Health and Deputy School Medical Officer.

H. M. C. Macaulay, M.D., B.S., B.Sc., D.P.H.

Tuberculosis Medical Officers.

F. R. B. Atkinson, M.D., C.M.

O. Bruce, M.R.C.S., L.R.C.P.

S. Trevor Davies, M.R.C.S., L.R.C.P.

J. R. B. Dobson, M.B., B.S., B.Sc.

H. Evans, M.D., Ch.B., D.P.H.

W. S. Forbes, M.B., Ch.B., D.P.H. (commenced duty 1st October, 1929).

E. E. Norton, M.D., D.P.H. (resigned 30th September, 1929).

Assistant Medical Officers.

(*Maternity and Child Welfare and School Medical Inspection and Treatment.*)

Mrs. A. M. Burn, M.B., Ch.B., D.P.H.

R. N. Daniel, M.R.C.S., L.R.C.P.

W. R. H. Heddy, M.R.C.S., L.R.C.P., D.P.H., Barrister-at-Law.

H. W. Moir, M.B., Ch.B., D.P.H.

Lieut-Col. H. L. W. Norrington, D.S.O., M.R.C.S., L.R.C.P.

Miss M. K. Ruddy, M.D., B.S., B.Sc.

Mrs. R. H. Shelley, M.B., B.S.

Miss G. Wilson, M.A., M.B., Ch.B., D.P.H.

Veterinary Inspector.

(*Milk and Dairies* (*Consolidation*) *Act*, 1915, *and Milk and Dairies Order*, 1926.)

Sidney Villar, F.R.C.V.S

Senior Dental Officer.

(*Maternity and Child Welfare, County Sanatoria, School Dental Treatment.*)

S. J. Smith, L.D.S.

Assistant Dental Officers.

(*Maternity and Child Welfare and School Dental Treatment.*)

J. V. Bingay, L.D.S.
Miss I. M. Broom, L.D.S.
R. E. Cook, L.D.S.
R. V. Kingham, L.D.S.
Mrs. C. S. Leiper, L.D.S.

Inspector of Midwives and Superintendent of Health Visitors.

Miss A. A. I. Pollard

Inspector of Midwives.

Miss C. A. M. Coleman.

Tuberculosis Dispensary Nurses	13
Health Visitors and School Nurses ...	22
Dental Nurses	6
Midwives	2

Harefield Sanatorium.

Resident Medical Superintendent.

J. R. McGregor, M.B., Ch.B., D.P.H.

Senior Assistant Resident Medical Officer.

J. F. Landreth, M.B., Ch.B., M.R.C.P. (resigned 14th June, 1929).

F. A. H. Simmonds, B.A., M.B., B.Ch. (promoted senior as from 15th June, 1929).

Resident Assistant Medical Officers.

V. Feldman, M.D., B.S., D.P.H. (resigned 5th May, 1929).

K. R. Stokes, M.R.C.S., L.R.C.P. (commenced duty 17th May, 1929).

D. G. M. Edwards, M.B., B.S., D.P.H. (commenced duty 23rd June, 1929).

Matron.

Miss C. Woodward.

Clare Hall Sanatorium.*

Resident Medical Superintendent.

A. C. Tabois, M.D.

Senior Assistant Resident Medical Officer.

R. V. Cookes, L.M.S.S.A.

Resident Assistant Medical Officer.

J. T. N. Roe, M.B., Ch.B. (commenced duty 1st July, 1929).

Matron.

Miss M. Brown.

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* Taken over by the County Council as from 1st April, 1929

PART-TIME OFFICERS.

Consulting Obstetric Physicians.

(1) *Central Ante-natal Clinic.*

J. S. Fairbairn, M.A., F.R.C.S., F.R.C.P.

(2) *Puerperal Fever, etc., Regulations*, 1926.

J. M. Wyatt, M.B., B.S., F.R.C.S.

Ophthalmic Surgeons.

(*Maternity and Child Welfare and School Medical Inspection and Treatment.*)

Mrs. S. G. Banham, M.B., B.Sc.

F. A. C. Tyrrell, B.A., M.B., B.Ch., F.R.C.S.

Assistant Medical Officers.

(*Maternity and Child Welfare.*)

Miss K. Glyn-Jones, M.R.C.S., L.R.C.P.*

L. W. Hignett, M.B., C.M., D.P.H.

F. A. Spreat, F.R.C.S., D.P.H.

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* Appointed whole-time Assistant Medical Officer 1st January, 1930.

Administrative County of Middlesex.

ANNUAL REPORT OF THE COUNTY MEDICAL OFFICER FOR THE YEAR 1929.

Natural and Social Conditions.

Area.—The Administrative County of Middlesex is 148,692 acres in extent, including inland water.

For the purposes of local government the County is divided into 33 separate sanitary areas as follows :—

4 municipal boroughs } with an area of
26 urban districts } 113,294 acres.
3 rural districts with an area of 35,398 acres.

The Royal Commission on London Government, which issued its report in 1923, advocated a reduction in the number of separate sanitary areas in the County by a process of amalgamation or absorption of districts, with a view to the creation of areas of such size and population as would lend themselves to more efficient administration. In the intervening period effect has been given to this recommendation in several directions, and the process seems likely to be accelerated in the not distant future by provisions of the Local Government Act of 1929. The year under review saw the disappearance as a separate unit of local government of the Rural District of Uxbridge, which was partitioned between the Urban District of Uxbridge, which absorbed the parishes of Harefield, Ickenham and parts of Hillingdon East and Cowley, and the Urban District of Yiewsley, which became enlarged by the inclusion of the parish of West Drayton, together with parts of Hillingdon East and Cowley, the new area thus formed being known as the Urban District of Yiewsley and West Drayton.

Population.—At the census which was made in 1921 the enumerated population of the County was 1,253,002. Of this number, 1,196,506 persons resided in the boroughs and urban districts and 56,496 in the rural districts. The estimated population of the Administrative County of Middlesex as calculated by the Registrar-General for the mid-year, 1929, was 1,462,650, an increase of over 40,000 above the corresponding figure for 1928. Excluding the personnel of the Army and Royal Air Force in the County, the estimated civilian population in 1929 was 1,458,810. Information regarding the enumerated population at the last two censuses and the estimated population in 1929 for each of the sanitary districts of the County is contained in the following table :—

Sanitary District.	Census 1911.	Census 1921.	Population, 1929, Estimated by Registrar-General.	
			Total.	Civilian.
Urban.				
Acton (*Borough*)	57,497	61,299	65,200	65,200
*Brentford	16,571	17,032	59,040	59,040
*Chiswick	38,697	40,938		
†Ealing (*Borough*)	61,222 [81,415]	67,755 [89,697]	104,000	104,000
Edmonton	64,797	66,807	75,000	75,000
Enfield	56,338	60,738	65,100	65,100
Feltham	5,135	6,326	8,048	7,708
Finchley	39,419	46,716	54,830	54,830
Friern Barnet	14,924	17,375	21,470	21,470

* The Urban Districts of Brentford and Chiswick were amalgamated on 1st April, 1927.

† The figures in square brackets represent the combined census populations of the Borough of Ealing and the Urban Districts of Greenford and Hanwell in 1911 and 1921 respectively. The two latter districts ceased to exist as separate entities on 1st October, 1926, when the Borough of Ealing became enlarged by their addition.

Sanitary District.	Census 1911.	Census 1921.	Population, 1929, Estimated by Registrar-General.	
			Total.	Civilian.
Urban—continued.				
Hampton	9,220	10,675	12,300	12,300
Hampton Wick	2,417	3,265	2,992	2,992
Harrow	17,074	19,469	24,550	24,550
Hayes	4,261	6,303	13,900	13,900
Hendon	38,806	56,013	83,540	83,190
Heston & Isleworth	43,313	46,664	63,070	62,240
Hornsey (*Borough*)	84,592	87,659	88,450	88,450
Kingsbury	821	1,856	8,349	8,349
Ruislip-Northwood...	6,217	9,112	14,120	13,480
Southall-Norwood	26,323	30,287	35,370	35,370
Southgate	33,612	39,122	49,630	49,630
Staines	6,755	7,326	7,916	7,916
Sunbury	4,607	5,350	7,119	7,119
Teddington	17,847	21,213	22,350	22,350
Tottenham	137,418	146,711	155,000	155,000
Twickenham (*Borough*)	29,367	34,790	36,070	36,070

Uxbridge	10,374	12,919	{ 28,200‡ (*24,820*)	26,660 (*23,280*)
Wealdstone	11,923	13,433	20,830	20,830
Wembley	10,696	16,187	35,530	35,530
Willesden	154,214	165,674	172,500	172,500
Wood Green...	49,369	50,707	53,410	53,410
Yiewsley and West Drayton ...	4,315	4,843	{ 8,656‡ (*7,996*)	8,516 (*7,886*)
Rural.				
Hendon	14,160	17,656	32,400	32,400
South Mimms	2,805	3,134	4,470	4,470
Staines	21,926	25,063	29,240	29,240
Uxbridge	9,240	10,643	(*4,040*)‡	(*4,010*)
The County	1,126,465	1,253,002	1,462,650	1,458,810

‡ The Rural District of Uxbridge was abolished on 31st March, 1929, when part of the district was transferred to Uxbridge Urban District and the remainder to the Urban District of Yiewsley and West Drayton; it has been necessary, for the purpose of calculating the birth-rates and death-rates of the districts concerned to make adjustment of the several populations estimated at the mid-year. The necessary figures have been furnished by the Registrar-General, and are given in italics.

Number of Inhabited Houses.—The total number of dwellings occupied by private families in Middlesex as recorded in the census return of 1921 was 236,266, and the average number of rooms per dwelling was 5·90.

Number of Families or Separate Occupiers.—The number of private families occupying the above premises in 1921 was 298,437, the average number of families per dwelling was 1·26, the average number of rooms per person was 1·14, whilst 7·8 per cent. of the private family population were living more than two persons per room.

Rateable Value and Sum represented by a Penny Rate.—The rateable value of the County in 1929 was £13,492,938, the product of 1*d.* rate for 1929 being £55,412.

Vital Statistics.—Before dealing in more detail with the vital statistics of the County, the following table is inserted as required by the Ministry of Health :—

Extract from Vital Statistics of the year 1929.

	Total.	M.	F.
Live Births—			
Legitimate	22,386	11,549	10,837
Illegitimate	945	475	470
Birth-rate			16·0
Deaths			16,705
Death-rate			11·5
Number of women dying in, or in consequence of, childbirth—			
From sepsis			27
From other causes			49
Deaths of infants under one year of age per 1,000 live births—			
Legitimate			54
Illegitimate			108
Total			56
Deaths from measles (all ages)			6
Deaths from whooping-cough (all ages) ...			210
Deaths from diarrhœa (under 2 years of age) ...			147

Births and Birth-Rates.—The corrected number of births belonging to Middlesex and occurring during 1929 was 23,331 (12,024 males and 11,307 females). This number is equivalent to a birth-rate of 16·0 per 1,000 of the population (the same rate as in 1928). The number of illegitimate births registered was 945 (475 males and 470 females), or an illegitimate birth-rate of 0·65 per 1,000 of the population. The ratio of legitimate to illegitimate births is 23·7 to one. The corresponding figures for 1928 were :—Total illegitimate births, 892, illegitimate birth-rate 0·63, ratio of legitimate to illegitimate births 24·4 to one.

The following table gives the birth statistics for the last five years for Middlesex, London, the Great Towns, and England and Wales :—

Year.	The County.		London.	Great Towns.	England and Wales.
	Births.	Rate per 1,000 living.	Rate per 1,000 living.	Rate per 1,000 living.	Rate per 1,000 living.
1925....	21,533	16·5	18·0	18·8	18·3
1926....	21,703	16·3	17·1	18·2	17·8
1927....	21,123	15·6	16·1	17·1	16·7
1928....	22,665	16·0	16·2	16·9	16·7
1929.... ...	23,331	16·0	15·7	16·6	16·3

From the above table it will be seen that the number of births occurring in Middlesex during 1929 showed an increase over 1928 *pari passu* with the estimated growth of population. The birth-rate for the two years, therefore, has remained constant. The birth-rates for London, the great towns and the country as a whole, however, have shown an appreciable further decline.

Particulars of the number of births and birth-rates in each sanitary district of the County are set out in the table which follows, the districts being arranged in descending order of magnitude of the birth-rate :—

Births and Birth-Rates in each District, 1929.

District.	Net number.	Rate per 1,000 living.	District.	Net number.	Rate per 1,000 living.
Yiewsley and West Drayton	203	*25·4 (*24·4*)	Brentford and Chiswick...	955	16·2 (*17·0*)
Hayes	314	22·6 (*20·8*)	Enfield	1,047	16·1 (*15·8*)
Kingsbury	179	21·4 (*24·5*)	Ruislip–Northwood ...	226	16·0 (*15·9*)
Wealdstone	413	19·8 (*20·1*)	Acton (Borough) ...	1,026	15·7 (*15·5*)
Uxbridge (Rural) ...	74	*18·3 (*20·3*)	Twickenham (Borough)...	556	15·4 (*16·4*)
Hendon (Urban)	1,508	18·1 (*15·5*)	Staines (Urban)	121	15·3 (*17·9*)
Staines (Rural)	524	17·9 (*17·9*)	Teddington	336	15·0 (*15·3*)
Feltham	142	17·6 (*19·9*)	Ealing (Borough) ...	1,529	14·7 (*14·9*)
Uxbridge (Urban) ...	430	*17·3 (*16·0*)	South Mimms (Rural) ...	65	14·5 (*13·2*)
Edmonton	1,299	17·3 (*17·8*)	Friern Barnet	307	14·3 (*13·9*)
Heston and Isleworth ...	1,078	17·1 (*17·1*)	Hampton	174	14·1 (*15·0*)
Wembley	607	17·1 (*18·7*)	Southall–Norwood ...	497	14·1 (*15·4*)
Hendon (Rural)	553	17·1 (*17·0*)	Hornsey (Borough) ...	1,221	13·8 (*13·6*)
Harrow	410	16·7 (*14·3*)	Wood Green	721	13·5 (*13·9*)
Tottenham	2,561	16·5 (*16·1*)	Finchley	704	12·8 (*14·3*)
Willesden	2,842	16·5 (*16·2*)	Hampton Wick	35	11·7 (*11·7*)
Sunbury	117	16·4 (*17·4*)	Southgate	557	11·2 (*12·6*)

Figures in brackets indicate birth-rates in 1928.

* These rates are based on the Registrar-General's adjusted population figures, which take account of the Rural District of Uxbridge being transferred partly to Uxbridge Urban District and partly to the Urban District of Yiewsley and West Drayton.

Still-Births.—The number of still-births registered in 1929 was 786, which is equivalent to a rate of 0·54 per 1,000 of the population as compared with the rate of 0·68 for the whole country.

Deaths and Death-Rates (All Causes).—The corrected number of deaths, belonging to the County, occurring during 1929 was 16,705, or 2,655 more than occurred in the course of the previous year. This corresponds to a death-rate of 11·5 per 1,000 persons living, and it is necessary to go back to the year 1918 to find so high a figure. A large increase in mortality was experienced all over the country, as is shown in the following table :—

Year.	The County.		London.	Great Towns.	England and Wales.
	Deaths.	Rate per 1,000 living.	Rate per 1,000 living.	Rate per 1,000 living.	Rate per 1,000 living.
1925....	13,192	10·1	11·7	12·2	12·2
1926....	12,941	9·8	11·6	11·6	11·6
1927....	14,325	10·6	11·9	12·2	12·3
1928	14,050	9·9	12·1	11·6	11·7
1929....	16,705	11·5	13·8	13·7	13·4

In the early months of the year the whole country was swept by a wave of influenza, unequalled in degree and severity since the world-pandemic of 1919. The increased mortality in Middlesex in 1929 is accounted for by the increase in deaths due to influenza itself, and to diseases of the heart and of the respiratory organs (pneumonia, bronchitis, &c.), *i.e.*, diseases which are prone to occur as sequelæ of influenza. The death-rate from cancer has remained constant for two years; that from tuberculosis shows an appreciable increase, which is entirely confined to increased mortality from pulmonary tuberculosis, and may also be associated with the influenza epidemic.

The death-rates (per 1,000 persons living) of the eight principal causes of death for the past five years are as follows :—

	1925.	1926.	1927.	1928.	1929.
Heart disease	1·64	1·52	1·73	1·73	2·32
Cancer	1·39	1·37	1·40	1·33	1·33
Pneumonia (all forms)	0·68	0·67	0·78	0·65	0·88
Tuberculosis (all forms)	0·84	0·86	0·88	0·76	0·83
Bronchitis	0·64	0·53	0·68	0·45	0·64
Influenza	0·25	0·18	0·46	0·16	0·62
Arterio-sclerosis ...	0·40	0·39	0·49	0·56	0·47
Cerebral hæmorrhage, &c.	0·59	0·56	0·50	0·44	0·47

Detailed information as to the different diseases which contributed towards the total number of deaths and the age groups in which these deaths occurred is given in the following table :—

CAUSES OF DEATH AT DIFFERENT PERIODS OF LIFE IN THE ADMINISTRATIVE COUNTY OF MIDDLESEX, 1929.

Causes of Death.	All Ages.	0—	1—	2—	5—	15—	25—	45—	65—	75—
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1. Enteric Fever	8	—	—	—	—	1	5	2	—	—
2. Smallpox	3	—	—	—	—	—	2	1	—	—
3. Measles	6	1	2	1	2	—	—	—	—	—
4. Scarlet Fever	20	—	1	2	12	3	2	—	—	—
5. Whooping-Cough ...	210	89	62	51	8	—	—	—	—	—
6. Diphtheria...	142	6	12	38	80	3	2	1	—	—
7. Influenza	906	10	18	16	12	28	126	261	198	237
8. Encephalitis Lethargica ...	35	—	—	1	—	6	10	8	7	3
9. Meningococcal Meningitis	28	10	3	3	6	3	3	—	—	—
10. Tuberculosis of Respiratory System	1,058	6	2	5	12	238	443	306	41	5

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Causes of Death.	All Ages.	0—	1—	2—	5—	15—	25—	45—	65—	75—
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
11. Other Tuberculous Diseases	157	16	19	24	24	25	22	19	6	2
12. Cancer, Malignant Disease	1,940	—	2	2	4	3	151	804	599	375
13. Rheumatic Fever ...	52	—	—	4	17	12	10	6	3	—
14. Diabetes	159	—	—	—	4	5	16	49	57	28
15. Cerebral Hæmorrhage, &c.	689	—	—	1	—	—	24	193	209	262
16. Heart Disease	3,380	1	1	—	19	43	193	803	1,008	1,312
17. Arterio-sclerosis	692	—	—	—	—	—	4	119	246	323
18. Bronchitis	936	48	10	9	—	4	23	159	214	469
19. Pneumonia (all forms) ...	1,278	172	106	72	34	34	150	326	214	170
20. Other Respiratory Diseases	214	4	5	2	1	4	27	84	46	41
21. Ulcer of Stomach or Duodenum	147	—	—	—	1	3	30	79	24	10
22. Diarrhœa, &c.	200	135	12	2	5	2	7	15	8	14
23. Appendicitis and Typhlitis	104	1	3	4	12	12	25	36	10	1

24. Cirrhosis of Liver ...	63	—	—	—	—	3	3	37	14	6
25. Acute and Chronic Nephritis	440	1	1	—	5	15	54	159	121	84
26. Puerperal Sepsis	27	—	—	—	—	5	22	—	—	—
27. Other Accidents and Diseases of Pregnancy and Parturition	49	—	—	—	—	7	42	—	—	—
28. Congenital Debility and Malformation, Premature Birth	615	594	3	5	4	3	3	3	—	—
29. Suicide	174	—	—	—	—	13	61	68	23	9
30. Other Deaths from Violence	569	23	7	18	66	96	91	109	73	86
31. Other Defined Diseases ...	2,399	194	21	35	85	89	244	619	450	662
32. Causes ill-defined or unknown	5	1	—	—	—	—	1	2	1	—
All Causes	16,705	1,312	290	295	413	660	1,796	4,268	3,572	4,099

DEATHS' AND DEATH-RATES IN EACH DISTRICT, 1929.

District.	Under 1 year of age.		At all ages.	
	No.	Rate per 1,000 births.	No.	Rate per 1,000 living
Urban—				
Acton (*Borough*)	85	83	831	12·7
Brentford and Chiswick ...	59	62	848	14·4
Ealing (*Borough*)	73	48	1,296	12·5
Edmonton	81	62	795	10·6
Enfield	63	60	691	10·6
Feltham	11	77	81	10·5
Finchley	32	45	604	11·0
Friern Barnet	19	62	220	10·2
Hampton	9	52	143	11·6
Hampton Wick	1	29	33	11·0
Harrow	15	37	237	9·7
Hayes	14	45	139	10·0
Hendon	67	44	861	10·3
Heston & Isleworth ...	50	46	769	12·4
Hornsey (*Borough*) ...	66	54	1,130	12·8
Kingsbury	9	50	52	6·2
Ruislip-Northwood ...	7	31	124	9·2
Southall-Norwood	26	52	317	9·0
Southgate	27	48	534	10·8
Staines	4	33	86	10·9
Sunbury	5	43	71	10·0
Teddington	18	54	270	12·1
Tottenham	165	64	1,844	11·9
Twickenham (*Borough*) ...	34	61	487	13·5
Uxbridge	28	65	233	10·0
Wealdstone	28	68	192	9·2
Wembley	33	54	350	9·9
Willesden	168	59	2,021	11·7
Wood Green	43	60	605	11·3
Yiewsley and West Drayton	11	54	94	11·9

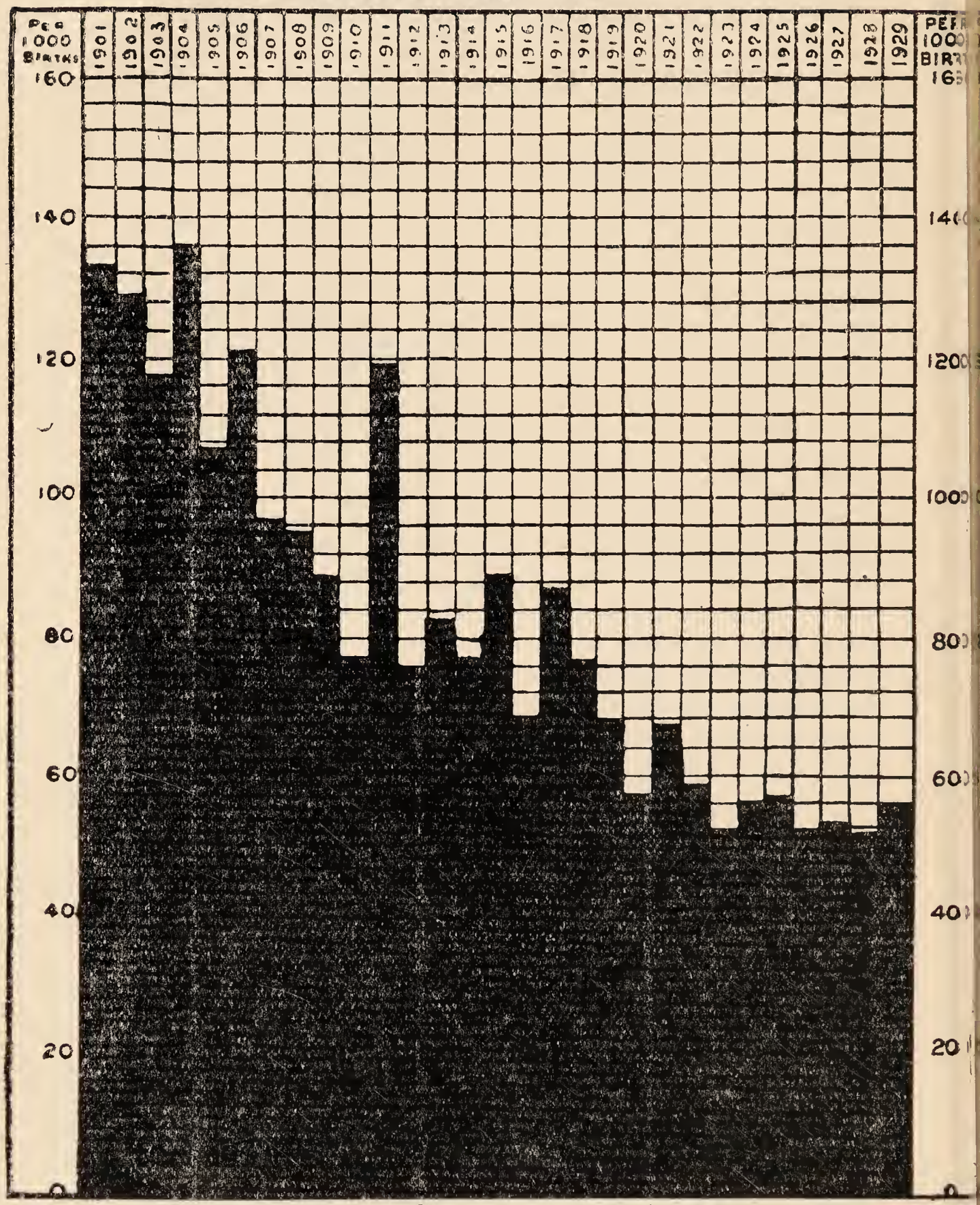
District.	Under 1 year of age.		At all ages.	
	No.	Rate per 1,000 births.	No.	Rate per 1,000 living.
Rural—				
Hendon	23	42	292	9·0
South Mimms	1	15	50	11·2
Staines	29	55	344	11·8
Uxbridge	8	108	61	15·2
The County	1,312	56	16,705	11·5

Infantile Mortality.—The number of deaths of infants under one year of age occurring during 1929 was 1,312, equivalent to an infantile mortality rate of 56 per 1,000 births. Although this figure is somewhat higher than that for 1928, which was the lowest on record, it compares very favourably with the corresponding rates for London, the Great Towns, and the country as a whole.

Year.	The County.			London.	Great Towns.	England and Wales.
	Births.	Deaths under 1 year.	Rate per 1,000 births.	Rate per 1,000 births.	Rate per 1,000 births.	Rate per 1,000 births.
1925	21,533	1,220	57	67	79	75
1926	21,703	1,122	52	64	73	70
1927	21,123	1,125	53	59	71	69
1928	22,665	1,168	51·5	67	70	65
1929	23,331	1,312	56	70	79	74

The table on pages 11–13 gives detailed information regarding the causes of death in the 1,312 cases indicated above. As

INFANTILE MORTALITY



PROPORTION OF DEATHS UNDER 1 YEAR OF AGE PER 1,000 BIRTHS.

in previous years, in a large proportion of this number, viz., 594, or 45·3 per cent., death was ascribed to congenital debility, malformation or premature birth; conditions which in our present state of knowledge for the most part are not preventable. Infantile diarrhœa was the cause of death in 135 instances, or 10·3 per cent. of the total, a higher proportion than has obtained for some years. Having regard, however, to the prolonged heat and dryness of the summer, that the number of infant deaths from this disease has not very greatly exceeded this total is, essentially, evidence of the progress made in the control of infantile mortality during recent years. Whooping cough led to the death of 89 infants. As has been pointed out on many previous occasions, this disease is very fatal to young babies: over 40 per cent. of the total deaths occurred amongst infants under one year of age.

Information as to the number of deaths of infants and the infantile mortality rate in each sanitary district in the County is given on pages 14 and 15, whilst on page 16 appears a chart indicating the variations in the infantile mortality rate in Middlesex since the beginning of the century.

Maternal Mortality.—The number of deaths of women from conditions due to, or associated with, childbirth was 76, or 10 fewer than the number recorded in 1928. This corresponds to a maternal mortality rate of 3·26 per 1,000 births. Although this figure is substantially lower than that for the previous year, it still remains unsatisfactorily high. In the following table maternal deaths are divided into two groups: those due to puerperal infection and those due to other causes:—

Year.	Puerperal sepsis.		Other accidents and diseases of pregnancy and parturition.		Total.	
	Number of deaths.	Rate per 1,000 births.	Number of deaths.	Rate per 1,000 births.	Maternal deaths.	Maternal mortality-rate.
1925	25	1·16	33	1·53	58	2·69
1926	30	1·38	34	1·57	64	2·95
1927	24	1·14	40	1·89	64	3·03
1928	42	1·85	44	1·94	86	3·79
1929	27	1·16	49	2·10	76	3·26

In 1928 Middlesex participated in an increase in the puerperal sepsis rate which affected the whole country and the cause of which at present remains unexplained. In 1929 the mortality rate from puerperal sepsis in this county resumed its wonted level, but the death-rate resulting from other accidents and diseases of pregnancy and parturition showed a decided increase. The figures are depressing, particularly when it is borne in mind that probably some 50 per cent. of maternal deaths are preventable.

Inspection and Supervision of Food.

The powers entrusted to County Councils with regard to supervision of food supplies relate to (*a*) certain aspects of the production and sale of milk, and (*b*) adulteration.

(*a*) Milk Supply. (1) *The Milk and Dairies (Consolidation) Act*, 1915. In the course of the year, 304 samples of milk from Middlesex producers or retailers were examined by animal inoculation at the Lister Institute of Preventive Medicine for the presence of tubercle bacilli. In 27 instances the result was indeterminate owing to the premature death from some intercurrent infection of the animal inoculated. In the remaining 277 samples in which examination was complete, living tubercle bacilli were

demonstrated in 21. The significance of this investigation may perhaps be better appreciated by expressing the result obtained as follows :—In unselected samples of milk purchased in Middlesex, living and virulent tubercle bacilli were found to be present in one sample out of every thirteen.

As can readily be understood the task of tracing to their origin tubercle bacilli present in a given sample of milk is often a matter of extreme difficulty, particularly when it is remembered that a large quantity of retailed milk is the mixed product of several farms situated perhaps in different parts of the country. Moreover, a cow which is yielding tuberculous milk does not invariably present obvious clinical signs of the disease ; and the subject is further complicated by the fact that a cow will sometimes excrete tubercle bacilli in her milk only intermittently.

In 8 of the 21 positive samples the affected animals were traced, 12 cows being found on the farms concerned to be suffering from tuberculosis within the terms of the Tuberculosis Order and these were slaughtered. Six of these samples had been produced in Middlesex and two in other counties. In two further instances the affected cows, three in number, were discovered independently by Mr. Villar in the course of his routine duties, and these likewise were slaughtered. In the eleven remaining cases it was not found possible to determine the source of infection ; in five of these the milk had been produced outside the county.

(2) *The Milk and Dairies Order*, 1926.—On 1st January, 1929, Mr. Sidney Villar, F.R.C.V.S., the newly-appointed veterinary inspector of the County Council, commenced the work of routine inspection and supervision of dairy herds in the County. Mr. Villar was able to visit practically all the cowkeepers' premises four times during the course of the year, apart from a very large number of additional visits which were necessitated as result of previous inspections. Mr. Villar's report for the year 1929 is as follows :—

> The number of registered cowkeepers' premises periodically visited is 242 and the number of cows kept thereon is approximately 5,250.

During the year, 15,783 inspections of individual cows have been made and 71 cows affected with tuberculosis have been discovered, out of which 68 have been slaughtered under the Tuberculosis Order of 1925.

Of the 71 cases of tuberculosis, 69 have been diagnosed by the examination of the animal or the microscopic examination of her milk, whilst in the case of 2 cows the existence of tubercle has been determined by inoculation of guinea pigs. During the year the milk of only 4 cows has been subjected to this biological test, of which 2 were positive and 2 negative.

In addition to the above, 30 cows have been found suffering from suppuration (abscess) in their udders, and 66 cases of acute mastitis (" garget ") have been dealt with.

Of sub-acute and localized mastitis (streptococcic) 211 cases have been the subject of notification to the owners.

One serious outbreak of contagious mastitis occurred, in which 21 cows were affected, there has also been one outbreak of " cow-pox " in which 10 cows in a herd of 16 were affected. In both these outbreaks frequent inspections of the animals were made and steps taken to restrict the sale of the milk of affected cows and to prevent the spread of the disease to healthy animals.

24 other cows on 15 different premises have been found affected with " cow-pox " ; in each case steps have been taken to prevent the spread of this disease, which, although not true variola, is very readily spread from cow to cow by the hands of milkers.

Septic conditions of the uterus following parturition or abortion in 9 cows have been notified to the owners.

" Boils " on the udder in 18 cases and severe sores on the teats of 14 cows were dealt with. Only one case of actinomycosis was observed, and here the cow's udder was not involved.

During this first year of periodical inspection, whilst a few cowkeepers resent, the majority appear to welcome the visits of the veterinary inspector, and especially so when the producer of milk is also the retailer.

I have found that on some premises the conditions for the production of healthy, clean milk is extremely good, whilst on other premises the cows and the milkers leave very much to be desired in the matter of cleanliness.

The number of cows in Middlesex is approximately 5,250 but as some 20–25 per cent. of these changed hands or left the County during the year, the actual number of cattle which have been kept under observation is in the

neighbourhood of 6,500. Amongst these animals were found 76 with signs or symptoms which led the veterinary inspector to suspect the presence of tuberculosis in one or other form. These were referred to the County Council's inspectors under the Diseases of Animals Acts and the Tuberculosis Order of the Ministry of Agriculture, with the following results :—

6 were deemed not to be suffering from tuberculosis, but one of these later was found to be so suffering, and was slaughtered by the owner.

4 were found to be tuberculous, but not to such a degree as to bring them within the terms of the Tuberculosis Order of the Ministry of Agriculture. One of these later became so much worse that it complied with the terms of the Order and was slaughtered by the owner.

66 were found to be suffering from tuberculosis as defined by the Order, and were slaughtered under instructions from the County Council.

It will be seen, therefore, that the activities of the Council's veterinary inspector have resulted in the removal of 68 tuberculous cattle from the Middlesex herds.

Attention should be drawn to the fact that in no less than 24 of the slaughtered animals, post-mortem examination, in the opinion of the veterinary surgeon who carried out the examination, indicated the presence of tuberculous disease of the udder, or prior to slaughter the animals had been proved to be giving tuberculous milk.

The beneficial effects of veterinary supervision are not limited to the discovery of tuberculosis only, and the finding of 404 animals suffering from various septic conditions, &c., mostly affecting the udder, in my opinion would in itself justify the continuance of regular supervision of dairy herds. In all these cases suitable instructions were given to the dairymen concerned, and the steps taken by the Council's officers must of necessity have had a beneficial effect upon the bacterial content of the milk produced in Middlesex. Nor must the educative aspect of the veterinary inspector's visits be lost sight of. Advice given by an

experienced veterinary surgeon, such as the Council's present inspector, must in the end lead to definite improvement in the unsatisfactory conditions with regard to milk production, which still are found to obtain in many dairies in the County.

(3) *The Milk (Special Designations) Order*, 1923.—Six licences for the production of "certified" milk have been granted by the Ministry of Health to Middlesex milk producers during 1929. The farms which are licensed are situated in the Urban Districts of Enfield, Finchley, Ruislip-Northwood, and Wembley, and the Rural Districts of Hendon and Uxbridge. No producer in the County held a licence during the year to sell "Grade A (Tuberculin Tested)" milk.

Two milk producers have been licensed by the County Council for the production of "Grade A" milk. The farms are situated in the Urban District of Finchley and the Rural District of Hendon respectively. A producer in the late Rural District of Uxbridge who previously had been the holder of a licence for the production of Grade A milk decided not to renew his application for licence in 1929 owing to lack of a market.

(4) *The Tuberculosis Order*, 1925.—This Order of the Minister of Agriculture is administered by the Diseases of Animals Sub-Committee of the County Council. From information supplied by the Clerk of the County Council, it appears that during 1929 visits were made by the Council's veterinary officers to 130 premises on which the presence of bovine tuberculosis was suspected and 1,622 animals examined. Of this number, 108 were found to be suffering from tuberculosis as defined by the Order and were slaughtered. The sum of £839 11*s.* 6*d.* was paid to the owners as compensation. The number of tuberculous cows slaughtered in 1929 was almost 70 per cent. in excess of the number so dealt with in the previous year; this increase is largely due to the work of routine inspection of dairy herds, carried out by Mr. Villar, to which reference already has been made.

(5) *Education in Clean Milk Production.*—The Middlesex Education Committee have continued their policy of

instructing farmers in the County in the methods to be employed in the production of clean milk. Mr. E. Rea, the County Council's Agricultural Organiser, has devoted much time to this end and in the course of numerous visits to farms, has given advice and practical assistance to milk producers.

The Fifth Clean Milk Competition was held in 1929.

(*b*) ADULTERATION.—The following information regarding work carried out during 1929 by the County Council in connection with sophistication of food, &c., has been supplied by Mr. R. A. Robinson, Barrister-at-law, Chief Officer of the Public Control Department :—

(1) FOOD AND DRUGS (ADULTERATION) ACT, 1928. In the following table are set out particulars of samples (formal and informal) submitted to the County Analyst by officers of the Public Control Department of the County Council during the year :—

Article.	Formal Samples.		Informal Samples.	
	Taken.	Adulterated.	Taken.	Adulterated.
Ammoniated Quinine Tablets	—	—	1	1
Apples	—	—	1	—
Arrowroot... ...	—	—	5	—
*Beer	—	—	1	—
*Biscuits	—	—	1	—
Boric Ointment ...	—	—	1	—
*Butter	1	1	110	3
Cheese	—	—	1	—
Cinnamon ...	—	—	4	—
*Cream	—	—	4	1

* *See* page 25.

Article.	Formal Samples.		Informal Samples.	
	Taken.	Adulterated.	Taken.	Adulterated.
*Cream, artificial ...	—	—	1	—
Eggs	—	—	8	—
Eucalyptus Oil ...	—	—	1	—
Gin	7	4	17	2
Honey	—	—	1	—
Hydrogen Peroxide	—	—	1	—
Iodine, Tincture of	1	1	1	—
*Lemon Cordial ...	—	—	1	—
Linseed, Liquorice and Chlorodyne Tablets	—	—	1	—
*Margarine ...	7	—	1	—
*Meat	44	5	—	—
*Milk	994	78	20	—
*Milk, sterilized ...	28	—	—	—
Mustard	—	—	2	—
Pepper	—	—	2	—
Rum	11	6	122	17
*Salt	—	—	1	—
*Sausages	10	2	—	—
*Sausages, cooked...	1	—	—	—
*Seasoning	—	—	1	—
Sugar	1	—	—	—
Tea	—	—	1	—
*Treacle	—	—	1	—
Whisky	12	4	2	1
Zinc Ointment ...	—	—	1	—
Totals ...	1,117	101	315	25

* *See* page 25.

In addition to the above, over 3,000 samples were examined during the year by officers of the Public Control Department.

(2) *Public Health (Condensed Milk) Regulations,* 1923 *and* 1927.—No action was taken under these Regulations during the year.

(3) *Public Health (Dried Milk) Regulations,* 1923 *and* 1927.—No action was taken under these Regulations during the year.

(4) *Public Health (Preservatives, &c., in Food) Regulations,* 1925 *and* 1927.—In the foregoing table articles marked * were also examined for the presence of preservatives. All the samples of meat and sausages shown as adulterated contained preservatives.

Infectious Diseases.

Notifiable Diseases other than Tuberculosis.

Smallpox.—Smallpox of the milder type, prevalent in the north of England, was introduced into London in the early part of 1928 and by the end of 1929 had firmly established itself and become endemic in the metropolitan area. During 1929, in London and its environs, over 3,000 cases were notified, and this number will certainly be considerably exceeded in 1930. In Middlesex, 80 cases with three deaths, occurred, of which number, 47 were in Willesden. In most instances the disease was mild in character, but included in the number 80 referred to above were four cases of classical or Asiatic smallpox, the patients being contacts to a case of this disease which occurred on board the S.S. "Tuscania" in the course of a voyage from Bombay to Glasgow in April. Particulars of these cases are as follows :—

Case I, Acton.—Female, age and vaccinal condition unknown. The onset was acute and the woman, who was pregnant, aborted and died shortly afterwards of hæmorrhagic smallpox. As the characteristic eruption did not

have time to develop before death supervened, the nature of the condition was only recognised post-mortem.

Case II, Acton.—Male, aged 29, husband of above, vaccinated in infancy, became acutely ill with confluent smallpox at the same time as Case I. He was removed to hospital, where he died seven days later.

Case III, Teddington.—Male, aged 43, vaccinated in infancy and re-vaccinated several times. The case was a very mild one and recovered.

Case IV, Hendon Urban.—Male, aged 30, vaccinated in infancy and revaccinated. Very mild case—recovered.

Cases I, II and III were passengers on board the S.S. "Tuscania; Case IV was a steward on the same vessel.

For many years the services of Dr. P. McConnell Wanklyn, the expert adviser upon smallpox on the staff of the London County Council, had been placed at the disposal of the local sanitary authorities in Middlesex in connection with the diagnosis of smallpox—services which were very greatly appreciated. In April, 1929, this arrangement came to an end in consequence of the illness and subsequent untimely death of Dr. Wanklyn. Since that date the Deputy County Medical Officer on a number of occasions has visited, in consultation with medical officers of health of Middlesex districts, cases of suspected smallpox in which the diagnosis presented points of difficulty.

Scarlet Fever.—During the year, 4,553 cases of scarlet fever were notified, equivalent to a case-rate of 3·12 per 1,000 persons living. The incidence was somewhat higher than was experienced in the previous year and is, in fact, the highest recorded since 1922. The cases were fairly evenly distributed throughout the County, no particular district having an undue preponderance of cases. The type of disease has continued to be benign and in spite of the high incidence only 20 fatal cases were recorded, equivalent to a case-mortality rate of 0·44 per cent., or a death-rate of 0·01 per 1,000 persons living. The death-rate from scarlet fever recorded for London, the Great Towns and for England and Wales was 0·02 per 1,000.

The following table gives the County figures during the past five years :—

Year.	Cases.	Deaths.	Case-rate per 1,000 living.	Death-rate per 1,000 living.	Case Mortality per cent.
1925	2,264	12	1·74	0·01	0·5
1926	2,584	10	1·95	0·01	0·4
1927	3,063	16	2·27	0·01	0·5
1928	4,146	18	2·93	0·01	0·4
1929	4,553	20	3·12	0·01	0·4

Detailed information as to the incidence of, and death-rate from, scarlet fever in each sanitary district in the County is given in the table on pages 29–31.

Diphtheria.—The number of cases of diphtheria notified in the County during the year was 2,857, equivalent to a case-rate of 1·96 per 1,000 persons living. The number of fatal cases was 142, or a case-mortality rate of 5 per cent. and a death-rate of 0·10 per 1,000 living. Both the incidence and the case-mortality of the disease were somewhat higher than of recent years. The death-rate from diphtheria in 1929 for the whole country and for London was 0·08 per 1,000 and for the Great Towns 0·09 per 1,000.

The following table indicates the prevalence in the County of diphtheria in each of the last five years :—

Year.	Cases.	Deaths.	Case-rate per 1,000 living.	Death-rate per 1,000 living.	Case Mortality per cent.
1925	1,763	108	1·35	0·08	6·1
1926	2,651	129	2·00	0·10	4·9
1927	2,205	82	1·63	0·06	3·7
1928	2,500	112	1·76	0·08	4·5
1929	2,857	142	1·96	0·10	5·0

The following table affords information as to the prevalence of, and mortality from, diphtheria in each sanitary district in the County. The highest incidence occurred in the Urban District of Heston and Isleworth (5·85 cases per 1,000 living).

Enteric Fever.—During the year there were notified 91 cases of typhoid and the paratyphoid fevers and of this number eight terminated fatally. These figures correspond to a case-rate of 0·06, a death-rate of 0·01 per 1,000 persons living and a case-mortality rate of 8·8 per cent. The following table gives statistical information regarding enteric fever for each sanitary district in the County.

County and District Rates, 1929.

Scarlet Fever, Diphtheria, Enteric Fever.

District.	Number of cases notified, with case-rate per 1,000 living. Number of deaths recorded, with death-rate per 1,000 living.											
	Scarlet Fever.				Diphtheria.				Enteric Fever.			
	Cases Notified.		Deaths Recorded.		Cases Notified.		Deaths Recorded.		Cases Notified.		Deaths Recorded.	
	No.	Rate.	No.	Rate.	No.	Rate.	No.	Rate.	No.	Rate.	No.	Rate.
Urban Districts—												
Acton (*Borough*)	231	3·54	1	0·02	48	0·74	1	0·02	7	0·11	1	0·02
Brentford and Chiswick	108	1·83	1	0·02	101	1·71	7	0·12	9	0·15	1	0·02
Ealing (*Borough*)	233	2·24	3	0·03	91	0·87	8	0·08	1	0·01	—	—
Edmonton	283	3·77	—	—	157	2·09	12	0·16	3	0·04	—	—
Enfield	168	2·58	1	0·02	89	1·37	1	0·02	1	0·02	—	—
Feltham	15	1·95	—	—	17	2·21	2	0·26	1	0·13	—	—
Finchley	156	2·85	1	0·02	46	0·84	2	0·04	7	0·13	1	0·02
Friern Barnet	71	3·31	—	—	12	0·56	—	—	4	0·19	—	—
Hampton	55	4·47	1	0·08	15	1·22	—	—	1	0·08	—	—

District.	Number of cases notified, with case-rate per 1,000 living. Number of deaths recorded, with death-rate per 1,000 living.											
	Scarlet Fever.				Diphtheria.				Enteric Fever.			
	Cases Notified.		Deaths Recorded.		Cases Notified.		Deaths Recorded.		Cases Notified.		Deaths Recorded.	
	No.	Rate.	No.	Rate.	No.	Rate.	No.	Rate.	No.	Rate.	No.	Rate.
Urban Districts—continued.												
Hampton Wick	16	5·35	—	—	3	1·00	—	—	—	—	—	—
Harrow	73	2·97	—	—	11	0·45	—	—	1	0·04	—	—
Hayes	49	3·53	—	—	7	0·50	1	0·07	1	0·07	—	—
Hendon	304	3·65	2	0·02	157	1·89	7	0·08	12	0·14	1	0·01
Heston & Isleworth	227	3·65	1	0·02	364	5·85	23	0·37	6	0·10	—	—
Hornsey (*Borough*)	246	2·78	—	—	129	1·46	8	0·09	5	0·06	—	—
Kingsbury	11	1·32	—	—	14	1·68	—	—	—	—	—	—
Ruislip-Northwood	21	1·56	—	—	18	1·34	—	—	1	0·07	—	—
Southall-Norwood	116	3·28	—	—	34	0·96	2	0·06	1	0·03	—	—
Southgate	133	2·68	2	0·04	21	0·42	2	0·04	2	0·04	—	—
Staines	36	4·55	—	—	5	0·63	1	0·13	—	—	—	—
Sunbury	24	3·37	—	—	3	0·42	1	0·14	—	—	—	—
Teddington	50	2·24	1	0·04	57	2·55	—	—	2	0·09	—	—

Tottenham	533	3·44	—	—	557	3·59	31	0·20	5	0·03	2	0·01
Twickenham (*Borough*)	124	3·44	—	—	94	2·61	4	0·11	3	0·08	—	—
Uxbridge	69	2·96	—	—	41	1·76	1	0·04	2	0·09	—	—
Wealdstone	141	6·77	1	0·05	15	0·72	—	—	2	0·10	—	—
Wembley	121	3·41	—	—	53	1·49	2	0·06	3	0·08	—	—
Willesden	574	3·33	1	0·01	413	2·39	13	0·08	6	0·03	—	—
Wood Green	187	3·50	1	0·02	128	2·40	2	0·04	1	0·02	2	0·04
Yiewsley and West Drayton....	10	1·27	—	—	29	3·68	1	0·13	—	—	—	—
Rural Districts.												
Hendon	102	3·15	2	0·06	84	2·59	3	0·09	4	0·12	—	—
South Mimms	7	1·57	—	—	3	0·67	1	0·22	—	—	—	—
Staines	53	1·81	1	0·03	34	1·16	6	0·21	—	—	—	—
Uxbridge	6	1·50	—	—	7	1·75	—	—	—	—	—	—
THE COUNTY	4,553	3·12	20	0·01	2,857	1·96	142	0·10	91	0·06	8	0·01

The above statistics were supplied by the Registrar-General.

Puerperal Fever and Puerperal Pyrexia.—During the year 58 cases of puerperal fever (2·5 per 1,000 births) and 188 (net) cases of puerperal pyrexia (8·1 per 1,000 births) were notified. The figures for the previous year were as follows :—Puerperal fever notifications, 63 (2·8 per 1,000 births) ; puerperal pyrexia net notifications, 177 (7·8 per 1,000 births).

The number of deaths from puerperal sepsis during 1929 was 27, equivalent to a maternal mortality rate from sepsis of 1·16 per 1,000 births. This figure is considerably below that for the previous year (1·85 per 1,000 births), when, for some reason, the mortality rate from puerperal sepsis rose to an exceptional height, not in Middlesex alone, but throughout the country.

Ophthalmia Neonatorum.—The number of notifications during 1929 was 135, or a case-rate of 5·79 per 1,000 births. The comparative figures for 1928 were 124 notifications (corresponding to 123 cases) and a case-rate of 5·43 per 1,000 births. The after-history of all the cases as regards the effect of the disease upon vision is not available ; but in so far as the 67 cases, which occurred in the practice of certified midwives, are concerned, it has been ascertained by enquiry that no injury to vision has resulted in any instance.

Measles.—This disease is not compulsorily notifiable throughout the county, so that it is not possible to put forward figures directly expressing the incidence of measles in any particular year. The mortality of the disease year by year, however, is an indirect indication of its incidence. Measles is a disease which, with considerable regularity, is prevalent every other year. Following a comparatively high mortality (216 deaths) in 1928, the number of deaths from measles in 1929 fell to 6.

The following table illustrates the biennial fluctuation in the number of deaths attributable to measles in the County during the past 10 years :—

Year.	Deaths.	Year.	Deaths.
1920 ...	112	1925 ...	27
1921 ...	14	1926 ...	160
1922 ...	130	1927 ...	4
1923 ...	35	1928 ...	216
1924 ...	191	1929 ...	6

Cerebro-spinal Fever.—Twenty-eight cases were notified during 1929. Four cases, which occurred in the Borough of Acton in the summer, and all of which ended fatally, were the occasion of a certain amount of publicity in the press. In connection with the investigation into these cases, which was conducted by the Medical Officer of Health of Acton, the County Council assisted by undertaking the bacteriological examination of a large number of pharyngeal swabs from contacts, the work being carried out for the County Council by the Bacteriologist of University College Hospital. The number of notifications during each year since the disease became notifiable in September, 1912, has been as follows :—1913, 7 ; 1914, 8 ; 1915, 115 ; 1916, 53 ; 1917, 54 ; 1918, 19 ; 1919, 33 ; 1920, 23 ; 1921, 9 ; 1922, 15 ; 1923, 11 ; 1924, 12 ; 1925, 12 ; 1926, 2 ; 1927, 16 ; 1928, 22 ; 1929, 28.

Encephalitis Lethargica.—Thirty-eight cases were notified during the year, and of this number thirty-five were fatal, corresponding to a case-mortality rate of over 92 per cent. As pointed out in last year's report, it is probable that such a rate as this is much above the true one. The signs and symptoms of lethargic encephalitis are so complex and protean in character that it is extremely probable that, owing to difficulty in diagnosis, many of the milder cases are missed. The severe and fatal cases are diagnosed and notified, with the result that the case-mortality rate appears unduly high. This conclusion is borne out by the fact that cases of post-encephalitic Parkinsonianism, in which no definite history of an acute attack

of encephalitis can be elicited, are by no means of rare occurrence. In these cases it is only by inference that a previous febrile attack is recognised, perhaps months later, as having in fact been encephalitis.

Since this disease was made compulsorily notifiable on 1st January, 1919, the number of notifications has been as follows :—1919, 28 ; 1920, 44 ; 1921, 53 ; 1922, 30 ; 1923, 31 ; 1924, 162 ; 1925, 110 ; 1926, 89 ; 1927, 44 ; 1928, 35 ; 1929, 38.

Acute Poliomyelitis.—Thirteen cases were notified during the year, as compared with 14 cases in 1928, 26 cases in 1927, and 45 cases in 1926. One of the 13 cases proved fatal.

Acute Polioencephalitis.—Five cases occurred, two of which were fatal. During the preceding five years the figures were as follows :—1928, 2 ; 1927, 4 ; 1926, 2 ; 1925, 1 ; 1924, 5 ; 1923, nil.

Pneumonia.—There were 2,514 cases of acute primary pneumonia and one case of acute influenzal pneumonia, notified during 1929. This is the highest number of cases notified in any year since the disease was made compulsorily notifiable in 1919. As is usually the case, the incidence of pneumonia was highest in the first quarter of the year, when 1,430 cases were notified. The peak period occurred in the latter part of February and March, when for several weeks notifications of between 150 and 200 cases a week were received. During this period influenza was epidemic, not only in Middlesex, but throughout the country.

The greatest number of notifications were received in Willesden (403), Tottenham (299), and Heston and Isleworth (216).

The number of deaths from all forms of pneumonia was 1,278, equivalent to a death-rate of 0·88 per 1,000 living, compared with 919 deaths and a death-rate of 0·65 per 1,000 in 1928.

Dysentery.—Forty cases of dysentery were notified during 1929, as compared with six cases in 1928 and two in 1927. The high figure for the year under review is largely accounted for by an outbreak of bacillary dysentery which occurred at a residential orphanage in Twickenham

in September, when 28 cases were notified. The outbreak, which was the subject of a special report by the Medical Officer of Health of Twickenham, appears to have originated as a result of the activities of a "carrier" who was employed at the institution as a dining-hall maid. In addition to the notified cases, a considerable number of persons resident in the institution developed, about this time, symptoms of gastro-intestinal irritation. No fatalities occurred.

Malaria.—Eleven notifications were received, of which ten related to cases believed to have been infected abroad and one to a case in which the disease was induced for therapeutic purposes. Five cases were notified in the Borough of Ealing.

Erysipelas.—There is evidence that this disease has been on the increase during the past few years, and it is of interest to note that the causative organism in erysipelas is closely allied to, if not identical with, the organism found in scarlet fever and severe cases of puerperal fever.

The number of cases of erysipelas notified in 1929 was 521. For the previous years the figures were :—1928, 525 ; 1927, 447 ; 1926, 351 ; 1925, 395 ; 1924, 386 ; 1923, 326.

Anthrax.—One non-fatal case was notified in Uxbridge Urban District in 1929.

Cholera, Plague, Relapsing Fever, Continued Fever and Typhus.—No cases of any of these diseases were notified during the year.

Isolation Hospital Accommodation.

(i) *Fever.*—Section 63 of the Local Government Act, 1929, requires every county council, as soon as may be after the commencement of the Act, to make a survey of the hospital accommodation for the treatment of infectious disease, provided by the county council and by the councils of any districts wholly or partly within the county. Upon the completion of such survey the duty is placed upon the county council of preparing in consultation with all such districts a scheme for the provision of adequate hospital

accommodation for the treatment of infectious disease within the county. At the time of writing this report, the survey is in process of being made.

At the close of 1929 the position with regard to isolation hospital accommodation was that fifteen hospitals for the treatment of cases of infectious disease were in existence in Middlesex, having been established by local sanitary authorities either singly or in combination. During the year a new block was erected at the Southgate District Council's Isolation Hospital consisting of eight single-bedded observation wards. The total accommodation in the County for cases of infectious disease is stated to be about 1,000 beds. Pending the issue of the special report on isolation hospital provision referred to above, details of the present accommodation (which in the main still are substantially correct) may be found in my annual report for 1925.

(ii) *Smallpox.*—The County Council is the authority for the provision of smallpox-hospital accommodation for the whole of the Administrative County, with the exception of the Urban District of Willesden.

In my Annual Report for 1928 full information was given regarding the agreement entered into between the Middlesex County Council and the Metropolitan Asylums Board, whereby the extensive hospital provision made by the Board for the treatment of smallpox became available for the reception of cases of smallpox occurring in any part of Middlesex (save the Urban District of Willesden). The arrangements were in operation during the whole of 1929 and worked with great smoothness and efficiency.

Tuberculosis.

The number of "new cases" of tuberculosis reported to the County by district medical officers of health during 1929 was 2,204. (Nine of these cases related to persons who changed their place of residence from one sanitary district to another within the county and were formally notified under the Regulations.) Of this total 1,907 (86·52 per cent.) were notified by medical practitioners or school medical officers in accordance with the Public Health

(Tuberculosis) Regulations, whilst 297 (13·48 per cent.) came to the notice of medical officers of health in other ways than by formal notification.

The number of deaths attributed to tuberculosis during the year was 1,215, of which 1,058 were due to pulmonary and 157 to non-pulmonary tuberculosis, corresponding to a death-rate from all forms of the disease of 0·83 per 1,000 persons living.

The following table shows the age- and sex-incidence of the 2,204 new cases, divided into pulmonary and non-pulmonary groups and compared with the number of deaths, similarly classified :—

New Cases and Deaths during 1929.

Age Periods.	New Cases.*				Deaths.†			
	Pulmonary.		Non-Pulmonary.		Respiratory.		Other.	
	M.	F.	M.	F.	M.	F.	M.	F.
0–1	3	1	6	7	5	1	11	5
1–5	5	4	42	27	4	3	24	19
5–10	23	14	55	34	3	9	10	14
10–15	20	14	29	23				
15–20	73	107	19	26	95	143	15	10
20–25	137	184	14	18				
25–35	240	248	15	34	249	194	8	14
35–45	192	134	11	10				
45–55	162	71	12	5	219	87	11	8
55–65	86	37	3	5				
65 and upwards	28	11	2	4	32	14	3	5
Totals	969	825	208	193	607	451	82	75

* These figures are summarised from the weekly returns received from the medical officer of health of each district in accordance with the Public Health (Tuberculosis) Regulations, 1924, and include notified and non-notified cases in the County as a whole.

† Statistics supplied by the Registrar-General.

These figures show an increase of 122 in the number of new cases reported in 1929, as compared with 1928, and an increase of 144 in the number of deaths attributable

to tuberculosis during the same period. The result of this increase in the number of deaths from tuberculosis upon the tuberculosis death-rate in 1929, as compared with that of the preceding year, is an increase of 0·07, but it must be borne in mind that the tuberculosis death-rate in 1928 was exceptionally low, being in fact the lowest ever recorded in Middlesex. The increased death-rate in 1929 was entirely due to an increase in the number of deaths due to tuberculosis of the respiratory organs and may possibly be associated with the epidemic of influenza in the early months of the year, to which attention has already been drawn. The death rate from non-pulmonary tuberculosis in 1929 is the lowest on record. The diagram, which appears on page 42 illustrates these points.

Further statistical information with regard to tuberculosis is contained in the pages which follow. The table on page 39 deals with the numbers of notifications of, and deaths from, tuberculosis during the past ten years with the corresponding rates in relation thereto. On pages 40 and 41 are set out details relating to notifications and deaths in each sanitary district in Middlesex, together with the numbers of persons whose names were on the tuberculosis registers of the various local sanitary authorities at the close of the year.

Tuberculosis Notifications and Deaths for past 10 Years.

	Tuberculosis of Respiratory System.				All Forms of Tuberculosis.			
	Number of Notifications.	Rate per 1,000 living.	Number of Deaths.	Death-rate per 1,000 living.	Number of Notifications.	Rate per 1,000 living.	Number of Deaths.	Death-rate per 1,000 living.
1920 ...	1,887	1·48	974	0·76	2,218	1·74	1,178	0·92
1921 ...	1,604	1·27	944	0·75	1,931	1·53	1,180	0·94
1922 ...	1,529	1·21	948	0·75	1,823	1·44	1,142	0·90
1923 ...	1,565	1·23	916	0·72	1,944	1·52	1,120	0·88
1924 ...	1,635	1·27	986	0·76	1,982	1·54	1,188	0·92
1925 ...	1,630	1·25	922	0·71	1,982	1·52	1,097	0·84
1926 ...	1,655	1·25	944	0·71	2,009	1·52	1,138	0·86
1927 ...	1,621	1·20	1,024	0·76	2,015	1·49	1,193	0·88
1928 ...	1,478	1·04	909	0·64	1,819	1·28	1,071	0·76
1929 ...	1,603*	1·10	1,058	0·73	1,907*	1·31	1,215	0·83

* These figures were obtained from copies of the weekly notifications of the district medical officers of health in the County furnished to the Registrar-General; the remaining statistics (except the rates) were supplied by the Registrar-General.

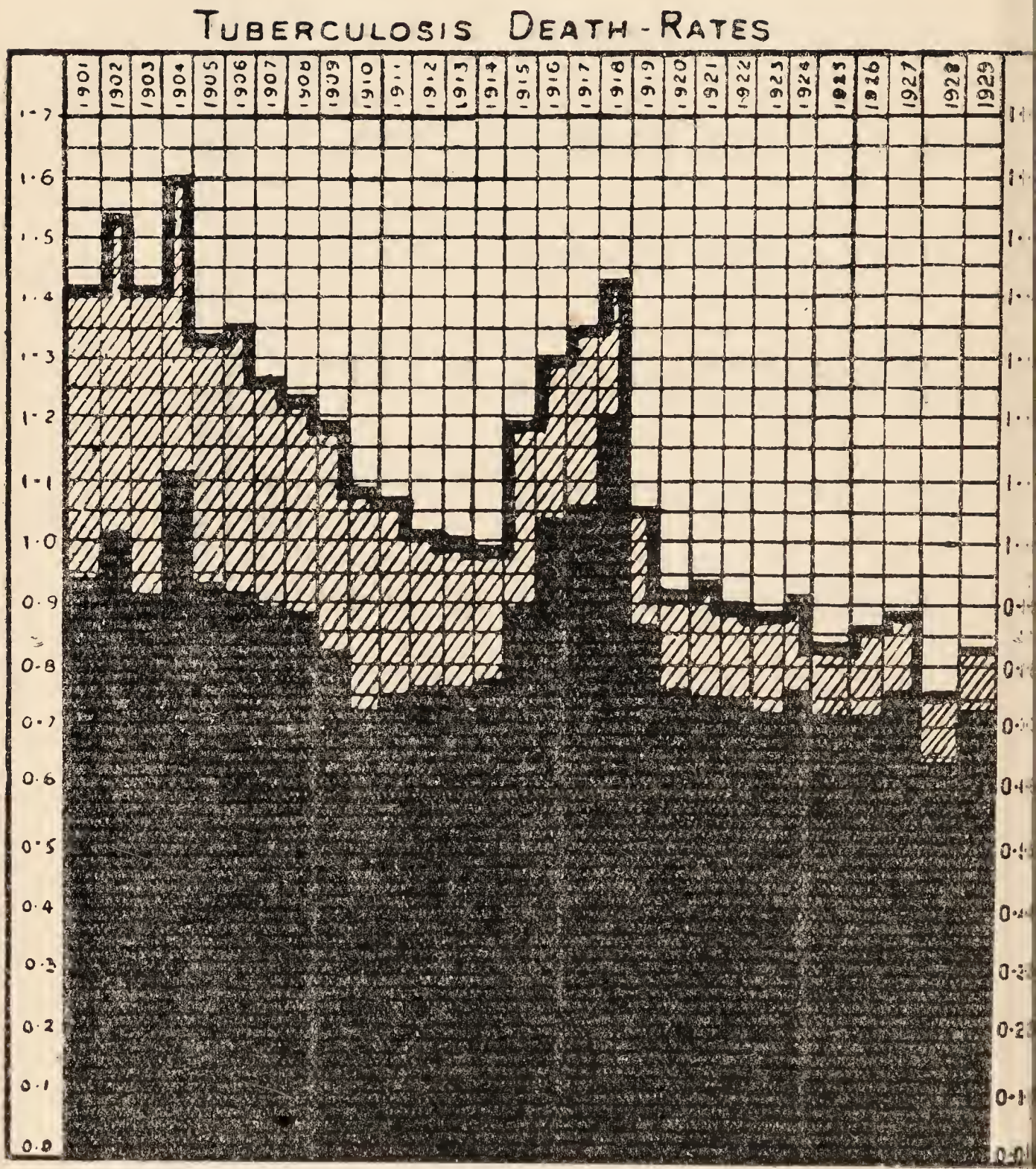
Notifications of, Deaths from, and Total Number of Cases of Tuberculosis in each Sanitary District.*

District.	Tuberculosis (all forms).				Cases of tuberculosis remaining on the 31st December, 1929, on the Registers of Notifications kept by Medical Officers of Health of districts in the County.						
	Cases notified, 1929.		Deaths.		Pulmonary.			Non-Pulmonary.			Grand Total.
	No.	Rate per 1,000 living.	No.	Rate per 1,000 living.	Males.	Females.	Total.	Males.	Females.	Total.	
Urban—											
Acton (*Borough*)	83	1·27	59	0·90	116	106	222	24	17	41	263
Brentford and Chiswick	83	1·41	70	1·19	270	245	515	55	78	133	648
Ealing (*Borough*)	135	1·30	100	0·96	131	130	261	35	39	74	335
Edmonton	108	1·44	86	1·15	333	259	592	88	93	181	773
Enfield	58	0·89	49	0·75	192	165	357	35	46	81	438
Feltham	10	1·30	3	0·39	11	6	17	4	2	6	23
Finchley	45	0·82	28	0·51	89	95	184	28	24	52	236
Friern Barnet	16	0·75	15	0·70	35	35	70	9	4	13	83
Hampton	4	0·33	4	0·33	8	8	16	12	9	21	37
Hampton Wick	4	1·34	—	—	6	7	13	1	5	6	19
Harrow	20	0·81	12	0·49	70	71	141	6	13	19	160
Hayes	18	1·29	12	0·86	24	23	47	13	2	15	62
Hendon	132	1·59	61	0·73	229	231	460	75	93	168	628
Heston & Isleworth	71	1·14	50	0·80	110	101	211	40	46	86	297

Hornsey (*Borough*)	109	1·23	73	0·83	216	220	436	68	59	127	563
Kingsbury	7	0·84	2	0·24	6	7	13	2	2	4	17
Ruislip-Northwood....	11	0·82	11	0·82	26	25	51	6	2	8	59
Southall-Norwood	43	1·22	26	0·74	44	58	102	8	17	25	127
Southgate	61	1·23	36	0·73	88	67	155	20	19	39	194
Staines	5	0·63	4	0·51	10	7	17	2	1	3	20
Sunbury	4	0·56	2	0·28	9	5	14	2	4	6	20
Teddington	28	1·25	11	0·49	41	31	72	20	16	36	108
Tottenham	240	1·55	144	0·93	407	294	701	114	81	195	896
Twickenham (*Borough*)	56	1·55	32	0·89	73	58	131	24	23	47	178
Uxbridge	24	1·03	16	0·69	45	31	76	21	11	32	108
Wealdstone	27	1·30	10	0·48	47	54	101	7	13	20	121
Wembley	54	1·52	21	0·59	121	103	224	22	36	58	282
Willesden	302	1·75	180	1·04	569	558	1,127	226	225	451	1,578
Wood Green	66	1·24	43	0·81	183	162	345	41	59	100	445
Yiewsley and West Drayton	13	1·65	10	1·27	20	19	39	14	15	29	68
Rural—											
Hendon	28	0·86	15	0·46	45	36	81	12	6	18	99
South Mimms	10	2·24	5	1·12	8	3	11	1	4	5	16
Staines	28	0·96	22	0·75	42	33	75	7	5	12	87
Uxbridge	4	1·00	3	0·75	†	†	†	†	†	†	†
The County	1,907	1·31	1,215	0·83	3,624	3,253	6,877	1,042	1,069	2,111	8,988

* Statistics as to deaths supplied by the Registrar-General. Other statitsics obtained from periodical returns from district medical officers of health.

† Uxbridge Rural District abolished 31.3.29.


TUBERCULOSIS DEATH-RATES
1901
1902
1903
1904
1905
1906
1907
1908
1909
1910
1911
1912
1913
1914
1915
1916
1917
1918
1919
1920
1921
1922
1923
1924
1925
1926
1927
1928
1929
1·7
1·6
1·5
1·4
1·3
1·2
1·1
1·0
0·9
0·8
0·7
0·6
0·5
0·4
0·3
0·2
0·1
0·0
TUBERCULOSIS (ALL FORMS) - DEATH RATE PER 1,000 LIVING.
TUBERCULOSIS (PULMONARY) - DEATH RATE PER 1,000 LIVING.

Scheme for the Prevention and Treatment of Tuberculosis.

The County Council's scheme for the prevention and treatment of tuberculosis came into operation in 1913 and from its commencement has included :—

(i) The provision of tuberculosis dispensaries ;

(ii) The provision of institutional accommodation ;

whilst in 1929 was added :—

(iii) The provision of home nursing in suitable cases.

(i) Tuberculosis Dispensaries. — These have been established to serve as centres for the diagnosis, supervision and treatment of cases of tuberculosis. For purposes of administration the County is divided into six areas, to each of which has been appointed a whole-time tuberculosis medical officer with specialised knowledge of and experience in the disease, who acts as a consultant. In each area there has been established a head-dispensary in charge of the tuberculosis officer, who is assisted by whole-time dispensary nurses and a whole-time clerk. In addition to the six head-dispensaries, eight sub-dispensaries have been opened, in order that the facilities available may be reasonably accessible to residents in all parts of the County.

In 1928 the County Council purchased a site in Pound Lane, Willesden, and in the course of 1929 erected a new dispensary thereon to replace the existing one (a building held on lease) which had become very unsatisfactory. The first session at the new dispensary was held on December 9th, 1929.

Particulars regarding the six dispensary areas, including information as to the tuberculosis medical officer in charge of each, with the addresses of the various dispensaries, are contained in the table on page 44.

Tuberculosis Dispensary Areas.

Area.	Districts served.	Tuberculosis Medical Officer.	Head Dispensary.	Branch Dispensaries.
1	Edmonton, Enfield	Dr. H. Evans	279, Fore Street, Edmonton.	—
1A	Tottenham	Dr. S. T. Davies ...	140, West Green Road, Tottenham.	—
2	Finchley, Friern Barnet, Hendon (Urban), Hornsey, Southgate, Wood Green, South Mimms.	Dr. J. R. B. Dobson ...	Chester Villa, High Road, N. Finchley.	10, Alexandra Road, Hornsey; 158, The Broadway, West Hendon.
3	Harrow, Kingsbury, Ruislip-Northwood, Wealdstone, Wembley, Willesden, Hendon (Rural).	Dr. O. Bruce	Pound Lane, Willesden.	53, Greenhill Crescent, Harrow.
4	Acton, Ealing, Hayes, Southall-Norwood, Uxbridge (Urban), Yiewsley and West Drayton	Dr. F. R. B. Atkinson	Green Man Lane, Ealing.	School Clinic, Municipal Offices, Acton; 156, High Street, Uxbridge.
5	Brentford & Chiswick, Feltham, Hampton, Hampton Wick, Heston & Isleworth, Staines (Urban), Sunbury, Teddington, Twickenham, Staines (Rural).	Dr. W. S. Forbes ...	28, Bell Road, Hounslow.	14, Heathfield Terrace, Chiswick; 12, Thames Street, Staines; 1, Staines Road, Twickenham.

A joint report by the tuberculosis officers upon the year's work in the dispensaries, together with some general observations upon the operation of the County Council's scheme for the treatment of tuberculosis, is as follows :—

Work under the County Tuberculosis Scheme has proceeded, during 1929, along established lines. The close relationship between the tuberculosis officers, sanitary authorities, general and special hospitals, school clinics and general practitioners has been maintained.

Cases dealt with at the dispensaries are received from the following sources :—

(1) Notifications.
(2) General and special hospitals and school clinics.
(3) Direct from general practitioners.

In 1928, there were 3,427 new cases referred to the tuberculosis officers of the County ; in 1929, the number was 3,600, the great majority of whom were referred to the dispensaries by general practitioners.

Frequent communications are made by the tuberculosis officers to general practitioners with reference to the necessity for, and the results of, institutional treatment, and also with regard to any suggested alteration of treatment. General practitioners are aware that they can make free use of the dispensary facilities for the diagnosis of any doubtful case, and they take every advantage of them.

Special methods of treatment.—Artificial pneumothorax and sanocrysin are still being used at Harefield Sanatorium in suitable cases. In our opinion, the results of these special forms of treatment agree with the findings of most authorities, *i.e.*, they are not curative but are adjuvants of great value. " Gamelan " has been tried in two areas in four cases where other forms of treatment had failed, but no beneficial result was obtained. One patient attending one of the Council's dispensaries had a course of Angio Lymph with apparently beneficial results and the same patient is now undergoing a further course but the result of this is not yet to hand. Artificial sunlight has been

thought by some of us to be of undoubted value in the treatment of certain forms of surgical tuberculosis, though others of us are not so convinced of the benefit. Some of us think the possibility of affording facilities for undertaking this form of treatment in local light-centres should be given serious consideration.

Accommodation for non-pulmonary cases.—Although the additional accommodation at Heatherwood Hospital and at Melton Lodge, Great Yarmouth, has relieved the waiting-list in the case of children suffering from non-pulmonary forms of the disease, there are still too few beds available for adult cases of surgical tuberculosis and the period of waiting for vacancies is a long one.

Treatment of Advanced Cases.—It is hoped that accommodation, increased in amount and nearer to the homes of the patients, may be provided as a result of the new Local Government Act.

Home Nursing.—In selected cases, subject to certain restrictions laid down by the Council, home nursing is provided for patients. Care is taken that this provision is not made in those cases which, in the opinion of the tuberculosis officer, ought to be in an institution. Its value lies chiefly in providing for the care of chronic surgical cases requiring frequent dressings.

Methods of Diagnosis.—X-rays are constantly employed for diagnostic purposes. Special arrangements are made with local hospital X-ray departments and with Harefield Sanatorium for reports upon cases referred, and by virtue of this provision installations of X-ray apparatus in the dispensaries have not been found necessary. Lipiodol has also been used with success for diagnostic purposes.

It has been thought advisable to restrict the use of the beds at Hounslow Hospital-Dispensary to doubtful cases for purposes of diagnosis only, so that no patient actually known to be suffering from tuberculosis should come into contact with a possibly non-tuberculous case.

The general trend of reduction in the incidence and mortality rates for all forms of tuberculosis during the last

few years is shown in the County Medical Officer's reports. This is undoubtedly partly due to improved standards of living and housing, but we are encouraged to think that some of the credit for this result must be awarded to the efficient working of the tuberculosis scheme in the County.

Pessimistic views are often taken by the public as to the ultimate results of the treatment of pulmonary tuberculosis and it is interesting to note during the last four years 1,035 cases have been written off the dispensary registers as definitely "Cured." The Ministry of Health defines as a "Cure"—in the case of pulmonary tuberculosis, one in which "five years have elapsed without any symptoms of active disease."

Training of Health Visitors at Tuberculosis Dispensaries.—Early in the year the College of Nursing addressed a letter to the County Council in connection with the approved courses organised by the College for the training of health visitors for the Health Visitor's Certificate. The letter asked whether it would be possible for students undergoing such training to attend at some of the County Council's tuberculosis dispensaries and obtain an insight into the work undertaken there, and by the tuberculosis nurses in the homes of the patients.

Although it was realised that the proposal, if carried out, could entail a certain amount of inconvenience at the dispensaries, the Council felt that unless local authorities were willing to assist in providing opportunities for training in the practical side of health visiting, such training would be of very limited value. Accordingly, it was decided to agree to the application and during the year a small number of nurses, training for the Health Visitor's certificate, attended at one or other of the Council's dispensaries and there received practical instruction in the duties of a tuberculosis nurse. All who participated in the course were later given the opportunity of paying a visit to the County Sanatorium, Harefield, where they were conducted round the institution and were shown matters of interest in connection with the work carried on thereat.

(ii) INSTITUTIONAL ACCOMMODATION.—The provision of institutional treatment for sufferers from tuberculosis continues to be administered along the lines which have been detailed in previous Annual Reports and which have been found to be effective in operation. In all cases admission to an institution is governed by a recommendation to that effect by one of the Council's tuberculosis medical officers, based either upon his own clinical examination of the patient, or, in those cases where the patient already is in a general or special hospital, upon the written report of the physician or surgeon under whose care the patient is.

The following statement shows the total number of beds belonging to, or reserved for the sole use of, the Council during 1929 :—

Institution.	Accommodation.			Type of case.
	Adults.		Children.	
	M.	F.		
*County Sanatorium, Harefield	129	129	56	Pulmonary — sanatorium.
	—	—	8	Pulmonary—observation.
County Sanatorium, Clare Hall, South Mimms	120	66	—	Pulmonary — late sanatorium and hospital
County Council Hospital-Dispensary, Hounslow	9	7	—	Pulmonary—observation.
Heatherwood Hospital, Ascot	—	—	25	Non-pulmonary.
Victoria Home, Margate	—	—	6	Non-pulmonary.

* Information as to the extent of the work carried out at the County Sanatorium, Harefield, during 1929 appears on page 65 *et seq.* of this Report.

In accordance with the Middlesex Districts Joint Small-pox Hospital Order, 1928, made by the Minister of Health, the County Council purchased Clare Hall Hospital from the constituent authorities of the late Joint Board, to whom the hospital belonged. The hospital became a County Council institution on 1st April, 1929, and has since been known as the County Sanatorium, Clare Hall. A single house committee has been appointed for the joint management of the two County Sanatoria, Harefield and Clare Hall, and the County Council Hospital-Dispensary at Hounslow.

As mentioned in last year's Annual Report, a convalescent home has been established by the United Services Fund at Melton Lodge, Great Yarmouth, in connection with Heatherwood Hospital, Ascot. The purpose of this convalescent home is to make provision for cases which no longer require active treatment at Heatherwood Hospital, but which are hardly fit for discharge to their homes. At Melton Lodge, cases remain for a further period under medical surveillance, remedial exercises are undertaken and any necessary alterations or adjustments to surgical appliances are carried out. By this means, somewhat earlier discharge of patients from Heatherwood Hospital is rendered possible, with the consequent libera-tion of valuable beds for the treatment of more acute cases.

The Medical Superintendent of Heatherwood Hospital attends periodically an after-care clinic at the Farringdon Dispensary, London, E.C., and children, after discharge, are encouraged to present themselves there from time to time for medical examination, so that any signs of re-activation of the disease may be at once detected, and in order that advice may be given and any necessary appliance ordered to avoid or counteract deformity. During the year the County Council entered into an arrangement to pay to the Hospital authorities a fee in respect of each attendance of a Middlesex case at the after-care clinic.

Other Institutions at which Patients have been maintained during 1929.

Sanatoria.—Brompton Hospital and Frimley; Chilton Hill, Sudbury; Daneswood; Eversfield, Sussex; Fairlight, Hastings; King Edward VII, Midhurst; King George's, Bramshot; Maltings Farm, Nayland, Suffolk; Marillac, Warley; National Sanatorium, Benenden; Royal National, Bournemouth; Royal National, Ventnor.	Pulmonary—various types.
Colonies.—British Legion Village, Preston Hall, Kent; Papworth Village Settlement, Papworth Hall, Cambridge.	
Homes for very advanced cases.—St. Luke's, Bayswater.	
Hospitals.—Atkinson Morley Convalescent, Wimbledon; Hendon Cottage; Prince of Wales's, Tottenham; Royal Sea-Bathing, Margate; St. Anthony's, Cheam; and All Saints, Royal National Orthopædic, St. Mary's, St. Thomas's and University College, London.	Non-pulmonary—adults.
Alexandra Hospital for Hip Disease, Swanley, Kent; Children's Hospital, Barnet; Children's Hospital, Sevenoaks; Hendon Cottage; Lord Mayor Treloar Cripples', Alton; Royal National Orthopædic, Country Branch. Stanmore; Royal Sea-Bathing, Margate; St. Anthony's, Cheam; St. Nicholas' and St. Martin's Orthopædic Hospital, Pyrford; St. Thomas's, London; St. Vincent's, Pinner; Wingfield Orthopædic, Oxford.	Non-pulmonary—children.

(iii) Home Nursing of Cases of Tuberculosis.—In the Annual Report for 1928 full details were given concerning the scheme adopted by the County Council for the home nursing of tuberculosis cases. The scheme was in operation throughout 1929, but there was very little call upon the service provided, possibly because its existence was not fully appreciated by all the various nursing associations functioning in the County, and possibly also on account of the very necessary restrictions imposed by the County Council with regard to the type of case suitable to be dealt with by a service of this nature.

Public Health Act, 1925.—No action was taken during the year under Section 62 of this Act, which provides for

compulsory removal to institutions of patients suffering from infective pulmonary tuberculosis in certain circumstances.

STATISTICAL SURVEY OF THE WORK CARRIED OUT DURING 1929 UNDER THE COUNTY TUBERCULOSIS SCHEME.—The tables appearing on the pages which follow are those prescribed by the Ministry of Health for the purpose of the annual statistical return of the authority. As will be seen, they contain a most detailed and at the same time comprehensive mass of information regarding the operation of the County's scheme. Table I refers to the work carried out at or in connection with the dispensaries, Table II deals with the extent of institutional treatment provided, and Table III indicates the immediate results of such treatment. Table IV is perhaps the most interesting and instructive, as it endeavours to show in statistical fashion the after history and ultimate fate of all tuberculous persons who have come under public medical treatment. The tables have not yet been long enough in use to enable any definite conclusions to be drawn from them, but in course of time Table IV will be, to a very large extent, a criterion of the efficiency or otherwise of an authority's scheme, indicating, as it will do, the proportion of cases first coming under treatment during any one year, which ultimately become cured.

In order to appreciate the information contained in these tables, it is necessary to have in mind the precise meaning of the terms occurring therein, many of which are used in a special sense. Information on this matter is given below.

Definitions and Classification.—Patients diagnosed as suffering from Pulmonary Tuberculosis are placed in the following categories :—

Class T.B. minus, viz., cases in which tubercle bacilli have never been demonstrated in the sputum ; and

Class T.B. plus, viz., cases in which tubercle bacilli have at any time been found. It should be noted that a patient originally in *Class T.B. minus* must be transferred to *Class T.B. plus* at any stage in the course of treatment

if and when tubercle bacilli are found ; while, on the other hand, a patient who is once placed in *Class T.B. plus* can never revert to *Class T.B. minus*. *Class T.B. plus* is further subdivided into three groups as follows :—

Group 1.—Cases with slight constitutional disturbance, if any, *e.g.*, there should not be marked acceleration of pulse nor elevation of temperature except of very transient duration ; gastro-intestinal disturbance or emaciation, if present, should not be excessive.

The obvious physical signs should be of very limited extent as follows :—Either present in one lobe only and in the case of an apical lesion of one upper lobe not extending below the second rib in front or not exceeding an equivalent area in any one lobe ; or where these physical signs are present in more than one lobe they should be limited to the apices of the upper lobes and should not extend below the clavicle and the spine of the scapula.

No complication (tuberculous or other) of prognostic gravity should be present. A small area of dry pleurisy does not exclude a case from this group.

Group 3.—Cases with profound systemic disturbance or constitutional deterioration, with marked impairment of function, either local or general, and with little or no prospect of recovery.

All cases with grave complications, whether tuberculous or not, are classified in this group, *e.g.*, diabetes, tuberculosis of larynx or intestine, &c.

Group 2.—All cases which cannot be placed in Groups 1 and 3.

Patients suffering from Non-Pulmonary Tuberculosis are classified according to the site of the lesion as follows :—

(1) Tuberculosis of bones and joints.
(2) Abdominal tuberculosis (*i.e.*, tuberculosis of peritoneum, intestines or mesenteric glands).
(3) Tuberculosis of other organs.
(4) Tuberculosis of peripheral glands.

Patients suffering from multiple lesions are classified in one sub-group only, viz., in that applicable to the case which stands highest in the table.

Observation Cases.—Persons attending at, or in connection with, the dispensaries, in whose cases the tuberculosis officer cannot, within a period of one month from his first examination of the case, come to a definite diagnosis after physical examination and the application of the necessary tests. (These cases appear on Table I, A and B, under subsection *b*.)

Quiescent.—Cases which have no symptoms of tuberculosis and no signs of tuberculous disease except such as are compatible with a completely healed lesion, and in which sputum, if present, is free from tubercle bacilli.

Arrested.—In pulmonary cases the term "arrested" is applied only to cases which have been "quiescent" for a period of at least two years.

In non-pulmonary cases the term "arrested" is used as soon as there is reason to believe that the disease is unlikely to recur.

Cured.—No patient is deemed to be "cured" until in the case of pulmonary tuberculosis, five years, and, in the case of non-pulmonary tuberculosis, three years, have elapsed without any symptoms of active disease (*i.e.*, arrest has been maintained for three years).

TABLE I.

Return showing the work of the Dispensaries during the year 1929.

Diagnosis.	Pulmonary.				Non-Pulmonary.				Total.			
	Adults.		Children.		Adults.		Children.		Adults.		Children.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
A.—*New Cases* examined during the year (excluding contacts) :—												
(*a*) Definitely tuberculous	541	453	20	13	42	51	53	43	583	504	73	56
(*b*) Doubtfully tuberculous	—	—	—	—	—	—	—	—	56	54	22	21
(*c*) Non-tuberculous	—	—	—	—	—	—	—	—	506	474	200	125
B.—*Contacts* examined during the year :—												
(*a*) Definitely tuberculous	34	38	8	6	2	—	2	2	36	38	10	8
(*b*) Doubtfully tuberculous	—	—	—	—	—	—	—	—	4	10	11	5
(*c*) Non-tuberculous	—	—	—	—	—	—	—	—	99	221	247	237
C.—*Cases written off* the Dispensary Registers as :—												
(*a*) Cured	82	67	29	18	15	9	24	23	97	76	53	41
(*b*) Diagnosis not confirmed or non-tuberculous (including cancellation of cases notified in error)	—	—	—	—	—	—	—	—	648	743	486	389

D.—*Number of persons on* Dispensary Registers on 31st December :—												
(*a*) Diagnosis completed	1,897	1,425	198	142	182	214	254	192	2,079	1,639	452	334
(*b*) Diagnosis not completed	—	—	—	—	—	—	—	—	31	33	16	12

1. Number of persons on Dispensary Registers on 1st January	4,447	9. Number of patients to whom Dental Treatment was given, at or in connection with the Dispensaries	—
2. Number of patients transferred from other areas and of "lost sight of" cases returned	284	10. Number of consultations with medical practitioners :—	
3. Number of patients transferred to other areas and cases "lost sight of"	499	(*a*) At homes of Applicants	197
4. Died during the year	703	(*b*) Otherwise	3,629
5. Number of observation cases under A (*b*) and B (*b*) above in which period of observation exceeded 2 months	88	11. Number of other visits by Tuberculosis Officers to homes	642
6. Number of attendances at the Dispensaries (including contacts)	14,446	12. Number of visits by Nurses or Health Visitors to homes for Dispensary purposes	14,896
7. Number of attendances of non-pulmonary cases at Orthopædic Out-stations for treatment or supervision	24	13. Number of :—	
8 Number of attendances, at General Hospitals or other Institutions approved for the purpose, of patients for :—		(*a*) Specimens of sputum, &c., examined	2,044
(*a*) "Light" treatment	2,110	(*b*) X-ray examinations made in connection with Dispensary work	470
(*b*) Other special forms of treatment	911	14. Number of Insured Persons on Dispensary Registers on the 31st December	2,600
		15. Number of Insured Persons under Domiciliary Treatment on the 31st December	117
		16. Number of reports received during the year in respect of Insured Persons :—	
		(*a*) Form G.P. 17	55
		(*b*) Form G.P. 36	26

Notes.

A.—*New Cases.* Totals include 12 "cured" cases returned for treatment or observation in 1929.

Item 7. Ex-Heatherwood patients who attended the After-Care Clinic at Farringdon General Dispensary since October, 1929.

Item 8(*b*). Including 392 attendances of patients at the County Sanatorium, Harefield, for artificial pneumothorax refills, who were not detained overnight.

Item 13(*a*). 32 additional examinations of sputum were made for medical practitioners, in respect of patients not on the dispensary register.

Table II.—Residential Institutions.

(a) *Average Number of Beds available for Patients during the year 1929.*

—	Observation.	Pulmonary Tuberculosis.		Non-Pulmonary Tuberculosis.		
		"Sanatorium" beds.	"Hospital" beds.	Disease of bones and joints.	Other conditions.	Total.
Adult Males	9	237	61	40	9	356
Adult Females	7	179	35	25	22	268
Children under 15	8	56	—	87	31	182
Total	24	472	96	152	62	806

(*b*) *Return showing the extent of Residential Treatment during the year 1929.*

—	In Institutions on 1st Jan.	Admitted during the year.	Discharged during the year.	Died in the Institutions.	In Institutions on 31st Dec.
Number of patients—					
Adults—					
Males	292	679	473	159	339
Females	227	492	367	94	258
Children—					
Males	85	118	114	4	85
Females	68	57	52	3	70
Number of observation cases—					
Adults—					
Males	—	78	74	—	4
Females	3	84	86	—	1
Children—					
Males	2	48	48	—	2
Females	1	27	23	—	5
Total	678	1,583	1,237	260	764

	Total number of individual patients treated during the year 1929.	Number of admissions during the year.	Number of discharges during the year.
Patients admitted for one or two nights only for artificial pneumothorax refills—			
Adults—			
Males	—	—	—
Females	4	7	7

During the year, contrary to previous practice, the great majority of patients who attended the County Sanatorium, Harefield, for artificial pneumothorax refills were not detained overnight in the Institution.

Table III.

Return showing the Immediate Results of Treatment of Patients and of Observation of Doubtful Cases discharged from Residential Institutions during the year 1929.*

Pulmonary Tuberculosis.

Classification on admission to the Institution.	Condition at time of Discharge.	Duration of Residential Treatment in the Institution.												Total.
		Under 3 months.			3—6 months.			6—12 months.			More than 12 months.			
		M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	
Class T.B. minus.	Quiescent	12	14	6	18	18	13	1	8	9	1	—	3	103
	Improved	10	11	6	10	14	13	—	1	1	1	1	1	69
	No material improvement	8	5	2	1	1	—	2	1	1	—	—	—	21
	Died in Institution	1	2	1	—	—	—	1	1	1	—	1	—	8
Class T.B. plus. Group 1.	Quiescent	4	5	—	20	13	—	5	3	1	3	2	—	56
	Improved	27	12	—	62	25	1	23	12	—	9	7	—	178
	No material improvement	9	9	—	8	6	—	4	5	—	4	1	—	46
	Died in Institution	9	4	—	8	5	—	2	4	—	6	2	—	40
Class T.B. plus. Group 2.	Quiescent	5	2	—	6	5	—	4	2	—	1	1	—	26
	Improved	21	15	—	51	24	—	18	17	—	8	9	—	163
	No material improvement	21	18	—	15	19	1	5	7	—	4	4	—	94
	Died in Institution	29	16	—	20	12	—	10	14	—	9	7	1	118
Class T.B. plus. Group 3.	Quiescent	—	—	—	1	1	—	—	1	—	—	—	—	3
	Improved	2	1	—	13	9	—	4	2	1	—	—	1	33
	No material improvement	7	6	—	3	6	—	6	—	—	1	1	—	30
	Died in Institution	37	15	1	5	4	—	10	2	—	5	2	—	81

			Under 1 week.			1—2 weeks.			2—4 weeks.			More than 4 weeks.			
Non-Pulmonary Tuberculosis.	Bones and Joints.	Quiescent or arrested	—	1	4	2	1	5	3	1	4	5	6	8	40
		Improved	1	3	6	—	1	4	2	2	4	6	2	14	45
		No material improvement	—	—	—	—	—	1	—	—	1	—	—	2	4
		Died in Institution	1	—	—	—	—	—	2	—	—	3	2	2	10
	Abdominal.	Quiescent or arrested	—	—	3	1	2	2	—	1	1	—	—	2	12
		Improved	—	2	1	—	2	4	1	—	1	—	2	1	14
		No material improvement	2	1	—	1	—	—	—	—	—	—	—	—	4
		Died in Institution	—	—	—	1	1	—	—	—	1	—	—	—	3
	Other Organs.	Quiescent or arrested	1	—	—	—	2	2	—	—	—	—	—	1	6
		Improved	—	—	—	—	1	1	1	—	—	3	—	—	6
		No material improvement	1	—	—	—	—	—	—	1	—	—	—	1	3
		Died in Institution	—	—	—	—	—	—	—	—	—	—	—	—	—
	Peripheral Glands.	Quiescent or arrested	—	—	6	1	1	5	1	5	7	—	—	2	28
		Improved	1	—	4	1	3	4	1	—	3	—	2	1	20
		No material improvement	—	1	1	—	—	—	—	—	—	—	—	—	2
		Died in Institution	—	—	—	—	—	—	—	—	—	—	—	—	—
Observation for purpose of diagnosis.		Tuberculous	2	—	—	8	9	6	5	—	12	—	—	13	55
		Non-tuberculous	7	3	2	36	46	1	14	22	10	—	1	27	169
		Doubtful	—	—	—	2	3	—	—	2	—	—	—	—	7

* The definition of "patient" does not include persons in whom a definite diagnosis of tuberculosis has not been made.

NOTES TO TABLE III.

Pulmonary Tuberculosis.

T.B. Minus cases discharged from institutions.

Of the 193 cases coming within the above category the following information with regard to sputum examinations is given :—

No. in which no sputum was available	76
No. in which the sputum was examined more than once	91
No. in which the sputum was examined once only	26
No. in which the sputum was not examined ...	Nil

T.B. Minus cases who died in institutions.

Particulars of the 8 patients coming within this category are as follows :—

Sputum negative on 12 occasions; cause of death, chronic fibrosis, T.B. pleurisy and bronchiectasis	1
Sputum negative on 12 occasions; cause of death, pulmonary tuberculosis and carcinoma of breast	1
Sputum negative on 8 occasions; cause of death, pulmonary tuberculosis	1
Sputum negative; several examinations; cause of death, pulmonary tuberculosis	1
No sputum available; cause of death. pulmonary tuberculosis, ascites and albuminuria	1
No sputum available : cause of death, pulmonary tuberculosis	1
No sputum available; cause of death, generalized tuberculosis	1
No sputum available: cause of death, tuberculosis of spine and knee (pulmonary tuberculosis quiescent)...	1

TABLE IV.—(*a*) PULMONARY TUBERCULOSIS.

Annual Return showing in summary form the condition of all Patients whose case records were in the possession of the Dispensaries at the end of 1929, arranged according to the years in which the Patients first came under Public Medical Treatment for Pulmonary Tuberculosis, and their classification as defined on page 51.

Condition at the time of the last record made during the year to which the Return relates.	Previous to 1926.					1926.					1927.					1928.					1929.				
	Class T.B. minus.	Class T.B. plus.				Class T.B. minus.	Class T.B. plus.				Class T.B. minus.	Class T.B. plus.				Class T.B. minus.	Class T.B. plus.				Class T.B. minus.	Class T.B. plus.			
		Group 1.	Group 2.	Group 3.	Total (Class T.B. plus).		Group 1.	Group 2.	Group 3.	Total (Class T.B. plus).		Group 1.	Group 2.	Group 3.	Total (Class T.B. plus).		Group 1.	Group 2.	Group 3.	Total (Class T.B. plus).		Group 1.	Group 2.	Group 3.	Total (Class T.B. plus).
Alive—																									
Discharged as cured—																									
Adults—																									
Males	316	122	29	5	156	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Females	287	39	7	4	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Children—																									
Males	110	1	1	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Females	87	2	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Disease arrested—																									
Adults—																									
Males	216	105	36	3	144	28	17	4	—	21	12	7	—	—	7	—	—	—	—	—	—	—	—	—	—
Females	117	44	20	1	65	33	6	4	—	10	22	1	—	—	1	—	—	—	—	—	—	—	—	—	—
Children—																									
Males	59	3	—	—	3	14	1	—	—	1	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Females	64	1	2	1	4	7	—	—	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Disease not arrested—																									
Adults—																									
Males	90	144	172	26	342	18	48	53	5	106	39	93	42	11	146	47	106	64	10	180	113	179	138	36	353
Females	68	76	75	15	166	40	33	43	8	84	39	51	40	8	99	77	75	88	10	173	122	120	105	37	262
Children—																									
Males	22	3	4	1	8	15	—	—	1	1	25	1	—	—	1	39	1	2	—	3	29	—	1	—	1
Females	21	4	3	—	7	8	—	1	1	2	16	1	—	—	1	32	—	1	—	1	14	—	1	1	2
Condition not ascertained during the year	1	1	1	3	5	4	—	—	1	1	—	—	2	—	2	—	—	2	1	3	—	—	—	—	—
Lost sight of or otherwise removed from Dispensary Registers ...	679	330	276	81	687	133	95	66	19	180	102	87	71	25	183	71	64	46	20	130	24	25	21	10	56
Dead																									
Adults—																									
Males	105	174	331	387	892	35	54	101	101	256	18	49	97	78	224	18	33	82	74	189	3	5	41	48	94
Females	60	92	190	236	518	26	22	84	87	193	23	36	77	54	167	14	23	60	39	122	13	7	28	31	66
Children—																									
Males	3	5	3	6	14	—	—	2	—	2	1	—	—	—	—	1	—	—	1	1	—	—	—	1	1
Females	15	1	5	6	12	3	—	6	6	12	1	1	3	2	6	—	—	1	2	3	—	—	1	1	2
Totals	2,320	1,147	1,155	775	3,077	364	276	364	229	869	304	327	332	178	837	299	302	346	157	805	318	336	336	165	837

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Table IV.—(*b*) Non-Pulmonary Tuberculosis.

Annual Return showing in summary form the condition of all Patients whose case records were in the possession of the Dispensaries at the end of 1929, arranged according to the years in which the Patients first came under Public Medical Treatment, and their classification as defined on page 52.

Condition at the time of the last record made during the year 1929.	Previous to 1926.					1926.					1927.					1928.					1929.				
	Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	Total.	Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	Total.	Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	Total.	Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	Total.	Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	Total.
Alive—																									
Discharged as cured—																									
Adults—																									
Males	39	11	12	12	74	—	—	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Females	21	13	3	13	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Children—																									
Males	56	27	10	42	135	1	—	—	2	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Females	48	10	12	52	122	—	—	1	2	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Disease arrested—																									
Adults—																									
Males	18	2	4	6	30	7	1	—	1	9	2	1	3	—	6	—	—	—	—	—	—	—	—	—	—
Females	7	2	1	6	16	4	2	2	1	9	2	2	1	2	7	—	1	—	1	2	—	—	—	—	—
Children—																									
Males	19	5	3	8	35	6	1	1	2	10	—	6	1	3	10	3	1	—	2	6	—	—	—	—	—
Females	18	2	2	9	31	1	4	1	2	8	3	2	—	7	12	—	—	—	2	2	—	—	—	—	—
Disease not arrested—																									
Adults—																									
Males	26	—	5	2	33	4	1	3	—	8	15	1	6	1	23	16	3	3	—	22	17	7	7	6	37
Females	21	—	11	3	35	10	3	1	2	16	14	4	6	3	27	18	6	10	6	40	15	12	8	10	45
Children—																									
Males	32	5	6	10	53	9	4	—	4	17	16	7	2	12	37	19	5	—	23	47	32	10	—	10	52
Females	24	3	8	6	41	12	—	—	7	19	13	4	4	3	24	19	3	3	4	29	20	3	3	16	42
Transferred to Pulmonary ...	4	1	2	4	11	3	—	—	1	4	—	1	2	1	4	1	—	—	—	1	—	—	—	—	—
Condition not ascertained during the year	—	—	—	—	—	1	—	—	—	1	—	—	—	—	—	—	—	1	—	1	—	—	—	—	—
Lost sight of or otherwise removed from Dispensary Registers ...	163	34	47	75	319	33	13	12	31	89	25	9	6	13	53	12	1	3	10	26	6	3	2	4	15
Dead—																									
Adults—																									
Males	18	5	7	1	31	5	2	—	—	7	2	2	—	—	4	5	1	1	—	7	1	—	2	—	3
Females	14	4	3	1	22	4	1	—	—	5	3	1	—	—	4	2	—	1	—	3	—	1	—	—	1
Children—																									
Males	11	5	1	1	18	—	1	—	—	1	2	2	—	1	5	1	2	—	1	4	—	—	—	—	—
Females	6	3	—	—	9	—	2	1	—	3	1	2	—	—	3	3	—	2	—	5	—	—	—	—	—
Totals	545	132	137	251	1,065	100	35	23	55	213	98	44	31	46	219	99	23	24	49	195	91	36	22	46	195

Table IV yields some very interesting information regarding the after history of tuberculous persons treated under the County's scheme, and in it individuals are classified according to the stage which the disease had reached when they first came under public medical treatment. Owing to the protracted course which the disease runs and the very slow nature of the healing process it is not possible to make dogmatic statements regarding the success of treatment until a considerable period of time has elapsed. Unlike most other diseases, in which a favourable termination, when it occurs, is obvious, tuberculosis requires an arbitrary definition of "cure." In pulmonary cases freedom from any signs of activity for a period of five years is regarded by most competent authorities as justifying the term "cure," and this standard has been adopted by the Ministry of Health. It must be understood, however, that five years is entirely an arbitrary period and pronouncements of "cure," based upon the above definition do occasionally prove unfounded.

From the above it will be apparent that in any endeavour to assess the value of a tuberculosis scheme from a curative point of view, it is necessary to consider the records of those individuals who, for a number of years have been under observation. In the first column of Table IV on page are grouped those persons who first came under public medical treatment previous to 1926. By the end of 1929, therefore, every member of this group then living had been under observation for at least four years, and the majority for considerably longer periods. The total number of pulmonary cases in the group under consideration is 5,397, but of these a large number, 1,372, have been lost sight of, either on account of their having left the County, or because they have signified they no longer desire public medical treatment, or for a variety of other reasons. Deducting this number together with a small number of persons whose condition, for some reason, could not be ascertained during the year, there remains a balance of 4,025 patients, the condition of whom was known at the end of 1929.

These may be analysed as follows :—

PULMONARY TUBERCULOSIS.

Class.	Total number for whom record is available.	Disease cured.		Disease arrested.		Dead.		Not arrested.	
			Per cent.		Per cent.		Per cent.		Per cent.
T.B. minus	1640	800	(49)	456	(28)	183	(11)	201	(12)
T.B. plus, Gp. I ...	816	164	(20)	153	(19)	272	(33)	227	(28)
,, Gp. II ...	878	37	(4)	58	(7)	529	(60)	254	(29)
,, Gp. III ...	691	9	(1)	5	(1)	635	(92)	42	(6)
All Classes ...	4025	1010	(25)	672	(17)	1619	(40)	724	(18)

From the above table it will be seen that, considering this group as a whole, one quarter of the number of persons who first came under public medical treatment for pulmonary tuberculosis prior to 1926, have been written off the dispensary registers as cured. The majority of those now classified as "disease arrested" will, doubtless, become cured after a further lapse of time, as also will a proportion of those whose disease is, as yet, not arrested. If we consider, however, those persons who sought treatment in a very early stage of the disease, represented by the class "T.B. minus," it is seen that very nearly one-half already are cured, whilst in more than three-quarters the disease is either cured or arrested. The figures thus furnish a very striking statistical demonstration of the importance of early treatment.

County Sanatorium, Harefield.

Admissions.—During the year ended December 31st, 1929, 597 patients were admitted to the institution for treatment: 316 males, 253 females and 28 children; 73 children also were admitted for observation purposes, 26 of whom were found to have definite signs of pulmonary tuberculosis and were transferred to the treatment wards.

45 persons suffering from pulmonary tuberculosis, for the most part patients who had undergone a period of institutional treatment, attended as out-patients at the County Sanatorium for the purpose of receiving artificial pneumothorax refills. These patients made a total of 401 attendances for this purpose. On seven occasions the Medical Superintendent considered it advisable to detain patients overnight or admit them to the treatment wards of the Sanatorium.

Discharges.—During the same period 597 patients were discharged: 293 males, 240 females, 64 children after treatment, 39 children also were discharged after observation. Included amongst the patients who were discharged are 74 who died in the sanatorium.

816 X-ray photographs were taken and numerous screen examinations made in the course of the year.

There is a considerable reduction in the number of cases of pulmonary tuberculosis in children treated at Harefield Sanatorium during the year. Whereas in 1927 80 cases were admitted for treatment and 142 in 1928, only 54 children were admitted to the treatment wards in 1929. From this fact alone it cannot, of course, be deduced that there has been any real decline in the incidence of pulmonary tuberculosis in children, but the fact remains that whilst there has been pressure, at times considerable pressure, upon the beds for adults, it has been a matter of difficulty to keep the children's beds occupied. In order that there should not be wastage of accommodation a rearrangement was made whereby more beds were made temporarily available for observation cases at the expense of certain treatment beds which appeared for the time to be redundant.

During the year Dr. McGregor, Medical Superintendent of the County Sanatorium, Harefield, attended a post-graduate course at Brompton Hospital, mainly devoted to modern advances in X-ray technique.

Statistical return of the Immediate Results of Treatment in the County Sanatorium, Harefield, during 1929, prepared by Dr. McGregor, Medical Superintendent.

Stage of Disease on Admission.	Number of patients.	Condition on Discharge.			Died.
		Quiescent.	Improved.	No material improvement	
CLASS *T.B. minus*—		Per cent.	Per cent.	Per cent.	Per cent.
Males	40	20·00	57·50	22·50	—
Females	55	27·27	58·18	12·72	1·81
Children	64	56·25	39·06	1·56	3·12
Total	159	37·10	50·31	10·69	1·88
CLASS *T.B. plus*, Group 1—					
Males	32	31·25	59·37	9·37	—
Females	17	17·64	70·56	11·76	—
Children	—	—	—	—	—
Total	47	26·53	63·26	10·20	—

Stage of Disease on Admission.	Number of patients.	Condition on Discharge.			Died.
		Quiescent.	Improved.	No material improvement	
Class T.B. plus, Group 2—		Per cent.	Per cent.	Per cent.	Per cent.
Males	115	1·73	82·60	12·17	3·47
Females...	64	4·68	70·31	20·31	4·63
Children	—	—	—	—	—
Total	179	2·79	78·21	15·08	3·91
Class T.B. plus, Group 3—					
Males	106	—	49·05	22·64	28·30
Females...	104	—	42·30	25·00	32·69
Children	—	—	—	—	—
Total	210	—	45·71	23·80	30·47

Venereal Diseases.

In the "Survey" Annual Report for 1925 full account of the Council's scheme for the treatment of venereal diseases was given, and there has not been any substantial alteration in the arrangements since that date. These arrangements fall into five categories, viz. :—

(1) Arrangements, jointly with the London County Council and other authorities, for the diagnosis and treatment of patients at certain of the London hospitals.

(2) Agreement with the Prince of Wales's Hospital, Tottenham, for the same purpose.

(3) Arrangements for publicity.

(4) Arrangements for the free supply of arseno-benzene compounds to approved medical practitioners.

(5) Arrangements for the instruction of medical practitioners in modern methods of treatment of venereal diseases.

The extent to which Middlesex patients have utilised the individual hospitals included in the scheme is shown in the table on page 72, and a comparative statement of the work carried out during the past five years is given on page 71. These tables relate only to Middlesex residents, although in the case of the Prince of Wales's Hospital, Tottenham, the County Council has borne the expense of the treatment of 55 new patients not resident in the County.

The total number of Middlesex new patients dealt with during the year was 2,328, an increase of 5 on the total for 1928. Of these cases, 442 were suffering from syphilis (an increase of 1), 3 from soft chancre (a decrease of 10), 1,109 from gonorrhœa (an increase of 140), whilst 774 (a decrease of 126) were found not to be suffering from venereal disease. The attendances of Middlesex patients totalled 56,945 (an increase of 2,350), and the number of in-patient days of treatment was 2,254 (a decrease of 110).

The extent of the work carried out under the Joint Scheme may be judged from the fact that the total number

of new cases from all areas dealt with at the London hospitals during 1929 was 24,786 (a decrease of 1,210), of which 4,931 (a decrease of 339) were suffering from syphilis, 10,774 (a decrease of 122) gonorrhœa, 280 (an increase of 45) soft chancre, whilst 8,801 (a decrease of 794) were diagnosed as not suffering from venereal disease.

The attendances totalled 768,872 (an increase of 5,337), and the number of in-patient days of treatment was 51,520 (a decrease of 13,586).

A comparison of the statistics relating to Middlesex patients attending each hospital in the scheme shows that the largest increase in new cases occurred at the following hospitals :—

Royal Northern Hospital, increased by 55.
Middlesex Hospital, increased by 31.

The hospitals where the largest increase in total attend ances occurred were :—

St. Paul's Hospital, increased by 1,799.
Middlesex Hospital, increased by 991.
University College Hospital, increased by 974.
London Hospital, increased by 346.

Advantage has been taken of the useful facilities provided by the inclusion within the scheme of hostels for young women. Eighteen Middlesex women (a decrease of 1) in an infective condition were accommodated during their pregnancies, and occupied beds for an aggregate of 2,154 days (a decrease of 113), or 8·1 per cent. of the total of all participating authorities.

Two doctors practising in Middlesex applied during 1929 to be placed on the approved list, enabling them to receive free supplies of arseno-benzene compounds. The total number now is 71. In addition to these there is a considerable number of doctors in London, by many of whom Middlesex residents would be treated, who also are on the list of approved practitioners.

Comparative Statement for the Past Five Years.

	MIDDLESEX Patients treated at														
	London Hospitals.					Prince of Wales's Hospital, Tottenham.†					Richmond Hospital.*				
	1925.	1926.	1927.	1928.	1929.	1925.	1926.	1927.	1928	1929.	1925.	1926.	1927.	1928.	1929.
Number of persons dealt with at the Clinics for the first time and found to be suffering from :—															
Syphilis	375	335	380	382	380	57	60	45	59	62	12	26	6	—	—
Soft chancre	9	8	3	11	1	1	—	—	2	2	—	1	—	—	—
Gonorrhœa	677	821	892	874	1,010	77	79	103	95	99	40	58	12	—	—
Not suffering from V.D.	638	609	735	814	661	91	82	70	86	113	41	41	11	—	—
Total	1,699	1,773	2,010	2,081	2,052	226	221	218	242	276	93	126	29	—	—
Total attendances	33,633	38,744	44,604	49,658	51,877	4,330	5,129	5,400	4,937	5,068	2,762	3,437	978	—	—
Number of "in-patients'" days of treatment ...	3,342	3,383	4,347	2,192	2,154	152	99	303	172	100	—	—	—	—	—
Number of doses of arsenobenzene compounds given....	3,575	3,791	3,990	4,402	3,881	530	390	240	450	437	281	397	105	—	—

* This clinic was closed on 19th April, 1927.

† These figures do not include patients not residents of the County, but treated at the Hospital, the cost being borne by the Middlesex County Council under the agreement with the Hospital.

Venereal Diseases.

Statement of Work done by Individual Hospitals in connection with Middlesex Patients during 1929.

Hospital.	New Cases.					Total attend-ances.	No. of in-patient days.	Arseno-benzene com-pounds. Doses given.
	Syphilis.	Soft Chancre.	Gono-rrhœa.	Not V.D.	Total.			
Great Ormond Street ...	19	—	3	83	96	569	669	273
Guy's	6	—	26	23	55	1,255	159	81
King's College	—	—	—	4	4	102	—	—
London	7	—	27	13	47	1,965	18	106
Metropolitan	1	—	5	5	11	172	—	19
Middlesex	20	—	45	9	74	1,944	155	181
Royal Free	15	—	74	67	156	2,630	114	456
Royal London Ophthalmic	32	—	20	—	52	519	166	184
Royal Northern	67	—	181	88	336	7,546	49	530
St. George's	10	—	16	3	29	603	—	181
St. Mary's	49	1	99	22	171	2,875	239	349
St. Paul's	20	—	80	98	198	7,914	170	92

St. Thomas's	32	—	104	151	287	7,807	163	500
Seamen's	2	—	5	1	8	57	158	9
South London for Women	—	—	—	3	3	53	12	10
University College ...	17	—	50	3	70	2,690	36	187
West London	89	—	268	86	443	12,548	36	716
Westminster	3	—	6	1	10	484	10	7
Salvation Army Mothers...	—	—	1	1	2	144	—	—
Children's, Waddon ...	—	—	—	—	—	—	—	—
Joint London Hospitals, Totals	380	1	1,010	661	2,052	51,877	2,154	3,881
*Prince of Wales's, Tottenham	62	2	99	113	276	5,068	100	437
Grand totals ...	442	3	1,109	774	2,328	56,945	2,254	4,318

* These figures do not include 55 new cases not residents of the County but treated at the Hospital, the cost being borne by the Middlesex County Council under the agreement with the Hospital.

Maternity and Child Welfare.

Administration of the Midwives Acts, 1902 to 1926.

The County Council is the local supervising authority under the Midwives Acts for the whole of the County and, as such, received notices of their intention to practise, either permanently or temporarily, from 389 midwives during the course of the year. This shows an increase of two over the corresponding figure for 1928.

In addition to the certified midwives mentioned above, a further 857 women, holding the certificate of the Central Midwives Board, were resident in the county. Of these, 66 were not subject to the supervision and control of the County Council, in view of the fact that they were employed in various Poor Law institutions. The remainder, numbering 791, were not engaged in the practice of midwifery, but were either employed in health visiting, general and maternity nursing, or else not actively occupied in the exercise of their profession. The number of midwives included in the above two groups shows an increase of 94 over the figure for the previous year, thus giving a net increase of 96 in the total number of midwives resident in the county.

The distribution of practising midwives among the several sanitary districts of the county is shown in the following table :—

District.	Total number of midwives practising during 1929.	Removed from district during 1929.	Practising temporarily during 1929.	Number in district end of 1929.
Urban—				
Acton (Borough) ...	11	—	1	10
Brentford and Chiswick	10	1	1	8
Ealing (Borough) ...	29	—	2	27
Edmonton	23	5	1	17
Enfield	11	—	—	11
Feltham	4	—	1	3
Finchley	9	2	—	7
Friern Barnet... ...	6	—	2	4
Hampton	3	—	—	3
Hampton Wick ...	—	—	—	—
Harrow	10	1	—	9
Hayes	6	—	—	6
Hendon	29	12	1	16
Heston and Isleworth	21	5	1	15
Hornsey (Borough) ...	15	—	1	14
Kingsbury	3	—	1	2
Ruislip-Northwood ...	6	—	1	5
Southall-Norwood ...	5	—	2	3
Southgate	9	—	—	9
Urban—continued.				
Staines	4	—	—	4
Sunbury	2	—	—	2
Teddington	6	—	1	5
Tottenham	17	2	—	15
Twickenham(Borough)	15	4	—	11
Uxbridge	4	—	—	4
Wealdstone	2	—	—	2
Wembley	9	—	—	9
Willesden	26	1	1	24
Wood Green	10	—	—	10
Yiewsley	5	1	—	4
Rural—				
Hendon	5	—	1	4
South Mimms... ...	—	—	—	—
Staines	11	—	3	8
Uxbridge	3	—	—	3
Extra County	60	4*	8	48
Totals	389	38	29	322

* 2 midwives died.

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Qualifications of midwives in practice.—The qualifications of the practising midwives are as follows :—

358 have passed the examination of the Central Midwives Board.

20 possess the certificate of the London Obstetrical Society.

11 were enrolled by reason of having been in *bona fide* practice previous to the Midwives Act, 1902, coming into operation.

The number of certified midwives who gained admission (without examination) to the Roll in virtue of having been in *bona fide* practice before the Act came into force shows a further decrease, and now amounts only to 2·83 per cent. of the total.

Uncertificated Women.—As a result of consideration of a report on the matter, the Maternity and Child Welfare Committee decided to prosecute under the Midwives Acts, 1902—1926, a woman (whose name had been struck off the Midwives Roll in 1925) for using the title of midwife without being so certified under the Act, and also for attending a woman in childbirth otherwise than under the direction and personal supervision of a qualified medical practitioner. The summonses were heard in April, when the last-mentioned charge was dismissed, the Magistrates accepting the plea of the defendant that she acted in emergency and urgent necessity. She was, however, fined £5 for using the title of midwife.

Verbal cautions were administered in five instances, and the women concerned are being kept under observation as far as possible.

Number of Births Attended by Midwives.—Practising midwives are required to furnish a return at the close of each year detailing the number of women attended by them either in the capacity of midwife, or whilst acting as maternity nurse under the direction of a medical practitioner. Owing to removals, deaths, &c., a few errors are

inevitable, but there is every reason to believe that the information obtained is substantially accurate. During 1929, 8,655 births in Middlesex were attended by certified midwives acting in the capacity of midwife, and in 2,501 further cases certified midwives acted as maternity nurses. The number of births attended by midwives is equal to 37·1 per cent. of all births registered, while certified midwives were employed as maternity nurses in 10·7 per cent. of cases, proportions much the same as in 1928.

Although the actual number of *bona-fide* midwives has decreased by two, the number of births attended by them shows a rise of 32, being 400 as compared with 368 in 1928, and amounting to 4·6 per cent. of all births attended by midwives. In a further 53 cases *bona-fide* midwives acted as maternity nurses, an increase of three on the number during the previous year.

Details as to the births attended by midwives in each sanitary area of the county are shown in the following table.

Births Attended by Midwives in each Sanitary Area in the County.

District.	Births attended by midwives residing in each district, 1929.	Births at which midwives acted as nurses, 1929.
Urban—		
Acton (Borough)	187	79
Brentford and Chiswick ...	503	68
Ealing (Borough)	852	352
Edmonton	935	46
Enfield	379	61
Feltham	126	45
Finchley	70	65
Friern Barnet	144	36
Hampton	122	35
Hampton Wick	—	—
Harrow	177	106
Hayes	229	67
Hendon	236	144
Heston and Isleworth ...	440	133
Hornsey (Borough) ...	323	191
Kingsbury	21	38
Ruislip-Northwood ...	76	49
Southall-Norwood... ...	146	10
Southgate	79	78
Staines	27	32
Urban—continued.		
Sunbury	78	17
Teddington	166	68
Tottenham	1,166	53
Twickenham (Borough) ...	370	101
Uxbridge	116	74
Wealdstone	76	4
Wembley	100	150
Willesden	478	86
Wood Green	224	84
Yiewsley	170	7
Rural—		
Hendon	53	45
South Mimms	—	—
Staines	317	46
Uxbridge	36	41
Attended by midwives residing outside the County	233	90
TOTALS	8,655	2,501

Notifications.—The number of notifications received from midwives, in accordance with the Rules of the Central Midwives Board, together with similar figures for the previous four years, are as follows :—

——	1925.	1926.	1927.	1928.	1929.
Notifications of—					
Sending for medical assistance	1,615	1,689	1,760	1,862	1,940
Still-birth	128	139	128	145	135
Death of infant ...	103	91	90	90	95
Death of mother....	2	2	3	7	4
Laying out the dead	34	32	33	41	31
Artificial feeding	55	60	54	43	55
Liability to be a source of infection	56	101	126	116	91
Totals	1,993	2,114	2,194	2,304	2,351

An examination of the above table shows that there has been an increase of 47 in the number of notifications of sending for medical aid, as compared with the number relating to the previous year, but this increase is not disproportionate in view of the increased number of births attended by midwives during 1929.

The following analysis shows the relative numbers of these notifications falling into various categories for the past five years :—

Medical assistance required for conditions arising	1925.	1926.	1927.	1928.	1929.
During pregnancy ...	127	129	226	244	257
During labour ...	859	840	844	982	974
During lying-in ...	185	210	168	159	184
In infant	444	510	522	477	525
Totals ...	1,615	1,689	1,760	1,862	1,940

Maternal Deaths.—It will be observed that, in the table on page 79, the deaths are recorded of four women who were notified by midwives as having died while under their care. In addition to this number must be noted those cases who, while being attended by certified midwives, became so seriously ill as to necessitate their removal to hospital, where they subsequently died. Nine such deaths occurred during 1929, making a total of 13, or a maternal death-rate for midwives' cases of 1·56 per 1,000 births attended, a figure comparing very favourably with the same rate for all births in the County, namely, 3·26 per 1,000 births.

As result of enquiries made into each of the 13 deaths recorded above, it appears that the causes of death were as follows :—

Puerperal sepsis...	—	
Toxæmias of pregnancy—		
Eclampsia	1	3
Albuminuria	2	
Shock following—		
Obstructed labour (died under anæsthetic)	1	3
Difficult labour (died two days later)	1	
Ruptured peritoneal vein ...	1	
Complication of labour or puerperium :—		
Pneumonia	1	7
Cerebral hæmorrhage during labour	1	
Placenta prævia	5	
		13

Puerperal Fever and Puerperal Pyrexia.—Under the Public Health (Notification of Puerperal Fever and Puerperal Pyrexia) Regulations, puerperal fever was notified in 14 and puerperal pyrexia in 40 cases which had been attended in their confinements by certified midwives. These figures represent 24·1 per cent. and 21·3 per cent. respectively of the total notifications received under the Regulations.

The terms "puerperal fever" and "puerperal pyrexia" are not to be considered as mutually exclusive. Whereas "puerperal fever" refers to a definite clinical condition in which there is a rise of temperature resulting from the infection by micro-organisms of some part of the genital tract, "puerperal pyrexia" (which was not a term in general use prior to the issue of the Regulations referred to above) has a much wider meaning and includes any rise of temperature exceeding 100·4° persisting for more than 24 hours or occurring on more than one occasion during the course of the puerperium, irrespective of the actual cause of such temperature.

The evidence furnished by very careful enquiries made in all cases of high temperature occurring in the practices of certified midwives indicates that the rise of temperature was in all probability due to puerperal sepsis in 39 of the 54 cases of puerperal fever or pyrexia notified under the Regulations.

This figure represents an incidence rate of notified raised temperature due to sepsis amongst midwives' cases of 3·9 per 1,000 births attended by them.

The following table records the yearly number of notifications of puerperal fever, &c., and of deaths from puerperal sepsis, both in the County generally and amongst midwives' cases for the past ten years. It is some satisfaction to observe that the marked increase in deaths from puerperal sepsis recorded last year, has not been repeated during 1929 notwithstanding the increase of over 600 in the number of births in the County. It is also of interest to note that no case of death attributable to puerperal sepsis occurred in the practice of any certified midwife throughout the whole of the year.

Puerperal Fever and Puerperal Pyrexia.

Year.	Total number of registered births.	Total number of cases notified.		Total number of deaths from Puerperal Sepsis.	Number of births attended by midwives.	Cases notified in practices of midwives.		Deaths from Puerperal Sepsis amongst midwives' cases.
		Puerperal Fever.	Puerperal Pyrexia.			Puerperal Fever.	Puerperal Pyrexia.	
1920	29,842	79	—	49	12,396	20	—	7
1921	25,191	80	—	34	11,300	18	—	5
1922	23,775	57	—	35	10,884	17	—	6
1923	23,172	67	—	36	10,246	16	—	6
1924	21,993	55*	—	34	10,218	16*	—	5
1925	21,533	62	—	25	10,164	18	—	5
1926	21,703	63	74‡	30	8,869†	23	17‡	8
1927	21,123	41	197	24	8,699†	9	46	5
1928	22,665	63	177	42	8,596†	15	35	6
1929	23,331	58	188	27	8,655†	14	40	—

* These figures relate to the period of 53 weeks ended 3rd January, 1925.
† Middlesex cases only.
‡ From 1st October, 1926.

Ophthalmia neonatorum.—Among the 525 notifications of sending for medical assistance for various conditions affecting newly-born infants are included 234 on account of inflammation of, or discharge from, babies' eyes. This is an increase of 42 upon the corresponding figure for 1928. In 167 instances the practitioners consulted were of the opinion that the condition present was not ophthalmia neonatorum. In the remaining 67 cases notifications of ophthalmia neonatorum were received.

Enquiries have been made into all cases of inflammation of, or discharge from, infants' eyes occurring in the practices of certified midwives, by officers either of the County Council or of the local sanitary authority under the special arrangements made following upon the issue of the Public Health (Ophthalmia Neonatorum) Regulations, 1926. From these enquiries it has been learned that there was complete recovery without injury to vision in every case.

Visits of Inspection.—The number of visits made by the Council's inspectors of midwives during 1929 was as follows :—

Visits to	midwives who had notified their intention to practise	906
,,	midwives who had not notified ...	22
,,	women not certified under the Midwives Act	8
,,	patients' homes in connection with cases of ophthalmia, &c.	120
,,	other persons in connection with investigations under the Midwives Acts	150
,,	premises in connection with the registration of nursing homes ...	278
,,	ante-natal clinics and welfare centres ...	55
	Total	1,539

Action taken.—The Maternity and Child Welfare Committee had under consideration in May complaints of misconduct on the part of a certified midwife practising in the County, when they found a *prima facie* case against the midwife of breaches of the Rules of the Central Midwives Board. Accordingly, the matter was reported to the

Board for investigation. The Board decided that a case had been made out, which required an answer from the midwife, and the specific charges framed by the Board were investigated at a special meeting of the Board on 7thNovember, 1929. The Board found several of the charges to be proved and, in order to give the midwife an opportunity of proving amendment, decided to postpone sentence and asked the County Council to report at the end of three months and again at the end of six months on her conduct and methods of practice.

The Maternity and Child Welfare Committee, however, did not agree with the findings of the Board and were of opinion that the midwife's name should have been removed from the Roll forthwith. The Board were informed of the Committee's views.

In accordance with the Central Midwives Board's decision, the midwife will be kept under special supervision and the reports required will be forwarded to the Board during 1930.

Letters of warning were sent to four midwives who had committed breaches of the Rules.

Letters of warning also were sent to two women not certified under the Midwives Act.

Eight certified midwives received verbal cautions from the Council's inspectors of midwives.

Lectures to midwives.—In the Annual Report for 1928 reference was made in some detail to the inauguration of a scheme whereby midwives practising in Middlesex were given the opportunity of participating in the very complete course of post-graduate instruction in obstetrics organised by the London County Council for the benefit of London Midwives. A very small charge is made to each midwife attending, the balance of the cost being shared by the two County Councils on the basis of user.

The facilities thus afforded for keeping in touch with modern developments affecting their work was much appreciated by Middlesex midwives, of whom 149 attended either the whole or part of one of the courses of lectures.

Arrangements on similar lines have been made for 1930 and details of the courses are set out below.

It has been found desirable to arrange for an increase both in the total number of lectures and demonstrations

given and in the range of institutions where these are held :—

NORTH LONDON COURSE, 1930.

Institutions at which Lectures will be given and Subjects of Lectures.

The Mothercraft Training Society, Cromwell House, Highgate Hill. N.6.

Care of the newly-born infant (January 3rd).

The Hackney Hospital, 230, High Street, Homerton, E.9.

Difficulties that may arise during labour and how the midwife should meet them. Routine examination at the tenth day after confinement and at the end of the sixth week. Demonstration in urine testing (January 13th) ; Sub-involution of the uterus—how to detect it—the signs and symptoms—its causes —its immediate and remote dangers. Treatment. Management of the third stage of labour. Retained and adherent placenta. Examination of the placenta (January 27th) ; Pyrexia in the puerperium. The causes. Morning and evening temperature. The pulse and what may be learnt from it. Sapræmia and septicæmia (February 10th) ; Puerperal infection —organisms which most commonly cause it. The channels of entrance and how conveyed. Mouth hygiene (including nose and throat) of patient and attendant. The care of the hands (February 24th) ; Precautions to avoid puerperal infection—ante-natal care. Conduction of the labour. Care during the puerperium. The lying-in room. Antiseptics. Demonstration of cultures of organisms (March 10th) ; Venereal disease. Gonorrhœa and syphilis in the mother and in the infant. What the midwife should do. Treatment (March 24th) ; Care of the breasts during pregnancy, and during the puerperium. Difficulties which may arise in connection with breast feeding and how to meet them. Toxæmias of pregnancy (April 7th) ; Albuminuria and eclampsia (April 14th) ; Puerperal insanity—and nervous and mental symptoms associated with severe illness (April 28th).

After each lecture cases of interest in the wards will be shown.

Western Ophthalmic Hospital (to be given at Hospital for Epilepsy and Paralysis and other Diseases of the Nervous System, 4, Maida Vale, W.).

Inflammation of the eyes of infants (January 15th) ; Inflammation of the eyes of infants (January 29th).

Royal Northern Hospital, Holloway Road, N.7.

Routine examination of the pregnant woman at seven months and at full term. Primipara and multipara. Routine examination at the tenth day and at the end of the sixth week after confinement. Toxæmias of pregnancy. Demonstration in urine testing (January 21st) ; Signs of the onset of labour. Differential diagnosis of slight ante-partum hæmorrhage.

Uterine inertia. Signs and symptoms of concealed hæmorrhage. Signs and symptoms of rupture of the uterus. Signs and symptoms of pulmonary embolism. What the midwife should do in each case. The significance of dyspnœa and "air hunger" (February 4th). Post-partum hæmorrhage; differential diagnosis between hæmorrhage from the placental site and hæmorrhage from lacerations of the birth canal. Prophylactic and curative treatment of post-partum hæmorrhage (February 18th); Pyrexia in the puerperium. The causes. Morning and evening temperatures. The pulse—what may be learnt from it. Puerperal infection (sapræmia and septicæmia)—organisms which most commonly cause it. The channels of entrance and how conveyed. Mouth hygiene (including nose and throat) of patient and attendant. The care of the hands. Germ carriers (March 4th): Precautions to avoid puerperal infection. Ante-natal care. Conduction of the labour. Care during the puerperium. The lying-in room. Antisepties (March 18th: Mal-presentations—their prevention—diagnosis and treatment (April 1st); the contracted pelvis. Obstructed labour—its prevention—diagnosis and treatment (April 15th).

Cases of interest in the wards will be shown after each lecture.

LECTURERS.

Miss M. Liddiard, Mothercraft Training Society.
James I. P. Wilson, Esq., F.R.C.S., Hackney Hospital.
A. Rugg-Gunn, Esq., F.R.C.S., Western Ophthalmic Hospital.
F. Roques, Esq., F.R.C.S., Royal Northern Hospital.

SOUTH LONDON COURSE, 1930.

INSTITUTIONS AT WHICH LECTURES WILL BE GIVEN AND SUBJECTS OF LECTURES.

GUY'S HOSPITAL, ST. THOMAS'S STREET, S.E.1.

Clinic in Maternity Ward (January 9th); Venereal disease in women and children. Specimens will be shown (March 5th); Venereal disease in women and children. Specimens will be shown (March 6th).

THE MIDWIVES' INSTITUTE, 12, BUCKINGHAM STREET, STRAND, W.C.

Puerperal infection, its causes, treatment and prevention (January 23rd); Hæmorrhage, ante- and post-partum (February 12th); Some causes of still-birth and neo-natal death (March 26th).

THE POST-CERTIFICATE SCHOOL, 77, SOUTHAMPTON STREET, CAMBERWELL, S.E.5.

Ante-natal observation (February 3rd): The management of labour (February 28th).

ST. THOMAS'S BABIES HOSTEL, PRINCE'S ROAD, KENNINGTON, S.E.11.

Difficulties in breast feeding and their solution (February 19th).

(NOTE.—Midwives who attend early or stay late will be taken over the Hostel by the matron.)

The Infants' Hospital, Vincent Square, S.W.1.
The premature and delicate baby (March 11th).

St. Thomas's Hospital, Albert Embankment, S.E.1.
Clinic in Maternity and Gynæcological Wards (March 17th),

The Greenwich and Deptford Hospital, 48, Vanbrugh Hill, S.E.10.
Difficult labours and their after-effects (April 2nd).

LECTURERS.

G. F. Gibberd, Esq., F.R.C.S., Guy's Hospital.
Dr. Morna Rawlins, Guy's Hospital.
James M. Wyatt, Esq., F.R.C.S., The Midwives' Institute.
Arthur J. Wrigley, Esq., F.R.C.S., The Midwives' Institute.
Sister Doubleday, The Post-Certificate School.
Charles K. J. Hamilton, Esq., M.R.C.P., St. Thomas's Babies Hostel.
Eric C. Pritchard, Esq., F.R.C.P., The Infants' Hospital.
A. H. Richardson, Esq., F.R.C.S., St. Thomas's Hospital.
Dr. W. D. Wiggins, Greenwich and Deptford Hospital.

Payment of Fees to Medical Practitioners.—Under the Rules of the Central Midwives Board, a midwife is required to send for medical assistance in all cases of illness or abnormality in the course of pregnancy, labour, or lying-in, and the doctor sent for is entitled to the payment of a fee by the County Council, in accordance with a scale and subject to certain conditions laid down by the Ministry of Health. The County Council has power to recover from the patient or her husband, the amount so paid, or such proportion of it as the financial circumstances of the case justify.

In the case of inflammation of, or discharge from infants' eyes, this right of recovery by the County Council has been waived, in accordance with the suggestion of the Ministry of Health, in order that there may be no temptation for midwives to delay calling in a doctor in cases of apparently trivial affection of the eyes.

The table on the next page furnishes details as to the cost of this scheme to the County Council during the past five years. It should be noted that while the financial particulars refer to the financial years, the numbers of notifications and claims are those received during the corresponding calendar years.

FEES PAID TO MEDICAL PRACTITIONERS UNDER SECTION 14 OF THE MIDWIVES ACT, 1918.

Year.	A. Number of notifications of sending for Medical Aid.	B. Number of Claims for fees received.	Percentage of B to A.	C. Total amount due to Doctors in respect of cases attended by them during financial year.				D. Income received from Patients in respect of Doctors' fees.			
					£	*s.*	*d.*		£	*s.*	*d.*
1924	1,331	622	46·7	1924–25	901	7	6	1924–25	224	6	2
1925	1,615	720	44·6	1925–26	885	10	0	1925–26	396	3	11
1926	1,689	730	43·2	1926–27	832	19	0	1926–27	303	5	6
1927	1,760	723	41·1	1927–28	937	1	6	1927–28	330	1	8
1928	1,862	849	45·6	1928–29	1,066	15	6	1928–29	360	7	4
1929	1,940	973	50·2	1929–30	1,314	11	6	1929–30	482	6	3

Maternity and Nursing Homes.

The County Council is the authority responsible for the administration of the Nursing Homes Registration Act, 1927, throughout the whole of the County. This Act renders it an offence for any person to carry on a nursing home without being registered by the local supervising authority in respect thereof.

A nursing home is defined in the Act as any premises used, or intended to be used, for the reception of, and the providing of nursing for, persons suffering from any sickness, injury, or infirmity, and includes a maternity home, but does not include—

(i) Any hospital or other premises maintained or controlled by a Government department or local authority or by any other body of persons constituted by special Act of Parliament or incorporated by Royal Charter;

(ii) Any institution for lunatics within the meaning of the Lunacy Act, 1890;

(iii) Any certified institution, certified house or approved home within the meaning of the Mental Deficiency Act, 1913.

In addition the local supervising authority may grant exemption from the operation of the Act in respect of any hospital or institution not carried on for profit.

On 1st January, 1929, there were registered with the County Council under the Nursing Homes Registration Act, 153 nursing homes, this number including those maternity homes which previous to June 30th, 1928, had appeared on the County Council's register of lying-in homes under the Middlesex (General Powers) Act, 1921, and subsequently were transferred to the Council's register under the new Act. These 153 homes had all been inspected personally by either the County Medical Officer or the Deputy County Medical Officer, accompanied by one of the Council's inspectors of midwives. During 1929, 41 further applications for registration were received, and in each case a similar inspection was carried out. At the close of

the year there were 159 nursing homes on the register of the County Council.

In accordance with section 6 of the Act, exemption from registration was granted in respect of 26 institutions not carried on for profit. Four of these were nursing homes belonging to charitable organisations, the remainder being general and local hospitals supported by voluntary contributions. The Ministry of Health exempted from registration four homes carried on in accordance with the principles of Christian Science.

The Committee decided to institute legal proceedings against a medical practioner and a nurse for jointly carrying on a nursing home without being duly registered in accordance with the provisions of the Nursing Homes Registration Act, 1927. The case was heard in April and the Magistrates fined each defendant £10.

The following table gives information regarding the registration of lying-in homes under the Middlesex (General Powers) Act from 1922 to June 30th, 1928, and of nursing homes under the Nursing Homes Registration Act from July 1st, 1928, until December 31st, 1929.

Lying-in Homes.

Year.	On Register at beginning of year.		Applications received.	Applications voluntarily withdrawn.	Registrations refused.	Registrations granted.	Applications held over or postponed.	Removed from Register on account of death or removal, or voluntarily	Registration cancelled.	On Register at close of year.	
	Number of homes.	Approved accommodation (beds).								Number.	Accommodation (beds).
1922	—	—	106	4	4	98	—	4	Nil	94	293
1923	94	293	25	4	—	21	—	9	Nil	106	339
1924	106	339	31	4	4	22	1	18	Nil	110	359
1925	110	359	27	3	2	18	5	10	Nil	118	366
1926	118	366	19	2	6	13	3	12	1	118	365
1927	118	365	33	3	—	29	4	21	1	125	391
1st half 1928	125	391	10	2	1	10	1	10	1	124*	388

Nursing Homes.

2nd half 1928	124†	388	56	1	1	49	6	18	2	153	863
1929	153	863	41	5	1	27	14	21	—	159	911

* On Register on June 30th, 1928.

† On Register on July 1st, 1928.

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The following table shows the number of registered nursing homes in each sanitary district in the County.

The figures in brackets indicate the number of homes devoted either wholly or partly to the reception of maternity cases.

District.	Number of nursing homes on Register at end of 1929.		Approved accommodation (beds) at end of 1929.
Urban—			
Acton (*Borough*)	4	(4)	21
Brentford and Chiswick ...	8	(7)	31
Ealing (*Borough*)	20	(14)	159
Edmonton	2	(2)	8
Enfield	5	(4)	19
Feltham	1	(1)	4
Finchley	12	(9)	64
Friern Barnet	1	(1)	1
Hampton	2	(2)	11
Hampton Wick	—	—	—
Harrow	5	(4)	44
Hayes...	1	(1)	3
Hendon	10	(8)	58
Heston & Isleworth ...	5	(4)	18
Hornsey (*Borough*)	20	(16)	117
Kingsbury	1	(1)	8
Ruislip-Northwood	4	(3)	9
Southall-Norwood	1	(1)	6
Southgate	5	(5)	39
Staines	2	(1)	18
Sunbury	1	—	10
Teddington	5	(3)	26
Tottenham	2	(2)	11
Twickenham (*Borough*) ...	9	(7)	66
Uxbridge	3	(2)	16

District.	Number of nursing homes on Register at end of 1929.		Approved accommodation (beds) at end of 1929.
Urban—continued.			
Wealdstone	1	(1)	7
Wembley	9	(7)	26
Willesden	10	(7)	51
Wood Green	2	(2)	7
Yiewsley and West Drayton	—	—	—
Rural—			
Hendon	8	(6)	53
South Mimms	—	—	—
Staines	—	—	—
Total	159	(125)	911

Maternity and Child Welfare Scheme.

The County Council is the authority for maternity and child welfare in 13 of the 33 sanitary districts which, at the close of 1929, made up the administrative County, namely, the Urban Districts of Feltham, Friern Barnet, Hampton Wick, Hayes, Kingsbury, Ruislip-Northwood, Staines, Sunbury, Uxbridge and Yiewsley and West Drayton, and the Rural Districts of Hendon, South Mimms and Staines. In all of these districts the County Council is also the authority for elementary education.

At the close of 1928, arrangements were in hand for the holding of special sessions for the examination of pregnant women at some of the more largely attended welfare centres, and during 1929 monthly sessions for ante-natal cases have

been held at the centres at Ashford, Feltham, Friern Barnet, Hayes (Townfield Road), Headstone, Staines, Sunbury and Yiewsley. Including the centre at Uxbridge (at which special ante-natal sessions were being held prior to 1st January, 1929), ante-natal sessions are now being held once a month at nine centres in the maternity and child welfare area of the County Council. Although the examination of pregnant women has been undertaken at the County Council's welfare centres since the inception of the maternity and child welfare scheme, the establishment of these special sessions has proved a useful extension of the scheme, and most satisfactory attendances have been recorded.

The increasing realisation by women of the extreme importance both to mother and offspring of skilled ante-natal advice will probably necessitate the holding in the near future of ante-natal sessions at other centres in the County Council's area, and there could be no more valuable development of the service.

The increasing population of the County has created the need for a number of additional maternity and child welfare centres and during the year seven new centres were opened, viz., at Ashford Common, Bedfont, Hayes (Townfield Road), Hillingdon, Ickenham, Kingsbury and South Ruislip. The number of centres provided by the County Council now is 34. Sessions are held thrice weekly at Hayes (Botwell), twice weekly at Hayes (Townfield Road), Uxbridge, and Yiewsley, and once a week at the remainder.

At the close of the year the establishment of several additional centres in parts of the County, where there was evidence that the existing provision was inadequate, was under consideration. The table on pages 96–98 gives particulars regarding the situations and times of sessions of the various welfare centres, and the name of the medical officer in charge of each; whilst the table on the following page affords similar information as to the ante-natal clinics in operation at the end of the year.

COUNTY COUNCIL WELFARE CENTRES AT WHICH ANTE-NATAL SESSIONS ARE HELD.

Sanitary District.	Address of Centre.	Day and Time of Ante-Natal Session.	Medical Officer in Charge.	First Session held.
Urban—				
Feltham	The Hut, Council School	Last Monday in each month, 9.30 a.m.	Dr. Wilson	30th September, 1929.
Friern Barnet	Congregational Church Hall, Oakleigh Road, Whetstone	Last Friday in each month, 2.30 p.m.	Dr. Daniel	27th September, 1929.
Hayes	Townfield Road Council School	Last Monday in each month, 9.30 a.m.	Dr. Shelley	30th September, 1929.
Staines	The Hut, Kingston Road Council School	Last Thursday in each month, 9.30 a.m.	Dr. Ruddy	26th September, 1929.
Sunbury	Congregational Church Hall, Rooksmead Road	Last Thursday in each month, 9.30 a.m.	Dr. Heddy	26th September, 1929.
Uxbridge	The Hut, Dunstans, High Street, Uxbridge	Second Wednesday in each month, 9.30 a.m.	Dr. Glyn-Jones	Transferred from Uxbridge Urban District Council on 1st April, 1928.
Yiewsley	Central Hall, Fairfield Road	Last Tuesday in each month, 9.30 a.m.	Dr. Ruddy	24th September, 1929.
Rural—				
Hendon	Headstone, St. George's Church Hall	Last Tuesday in each month, 9.30 a.m.	Dr. Burn	31st December, 1929.
Staines	Wesleyan Church School Room, Clarendon Road, Ashford	Last Wednesday in each month, 9.30 a.m.	Dr. Wilson	25th September, 1929.

County Council Welfare Centres.

Sanitary District.	Address of Welfare Centre.	Day and Time of Meeting.	Medical Officer in Charge.
Urban—			
Feltham	The Hut, Council School ...	Tuesday ... P.M. 2.30 ...	Dr. Wilson.
Friern Barnet ...	Congregational Church Hall, Bellevue Road.	Wednesday 2.30 ...	Dr. Spreat.
	Freehold Social Institute, Hampden Road.	Friday ... 2.30 ...	Dr. Spreat.
	Congregational Church Hall, Oakleigh Road, Whetstone.	Tuesday ... 2.30 ...	Dr. Daniel.
Hampton Wick ...	Baptist Mission, Upper Teddington Road.	Friday ... 2.30 ...	Dr. Heddy.
Hayes	Brotherhood Hall, St. Anselm's Road.	Monday ... 2.30 Thursday 2.30	Dr. Shelley.
	*Townfield Road Council School	Tuesday ... 2.30 Wednesday 2.30	Dr. Shelley.
Kingsbury... ...	†Church Hall, Bacon Lane ...	Wednesday 2.30 ...	Dr. Burn.

Ruislip-Northwood	Eastcote—Church Hall	Wednesday	2.30	...	Dr. Hignett.
	Northwood—Methodist Assembly Room, Hallowell Road.	Tuesday ...	2.30	...	Dr. Hignett.
	Ruislip—Church Institute ...	Thursday ...	2.30	...	Dr. Hignett.
	‡South Ruislip British Legion Hall, West End Road.	Monday ...	2.30	...	Dr. Glyn-Jones.
Staines	The Hut, Kingston Road Council School.	Wednesday	2.30	...	Dr. Wilson.
Sunbury	Congregational Church Hall, Rooksmead Road.	Wednesday	2.30	...	Dr. Heddy.
		Thursday ...	2.30	...	
Uxbridge	Colham Green—Mission Room...	Wednesday	2.30	...	Dr. Glyn-Jones.
	Harefield—Memorial Hall ...	Thursday ...	2.30	...	Dr. Norrington.
	Hayes End—Salem School, High Road.	Friday ...	2.30	...	Dr. Moir.
	†Hillingdon West, St. Andrew's Hall.	Thursday ...	2.30	...	Dr. Glyn-Jones.
	§Ickenham, Village Hall ...	Tuesday ...	3.0	...	Dr. Norrington.
	Uxbridge, High Street	Tuesday ...	2.30	...	Dr. Glyn-Jones.
		Friday ...	2.30	...	
Yiewsley and West Drayton ...	Yiewsley, Central Hall, Fairfield Road.	Tuesday ...	2.30	...	Dr. Ruddy.
		Friday ...	2.30	...	

* Opened on 16th October, 1929.

† Opened on 2nd October, 1929.

‡ Opened on 30th December, 1929.

§ Opened on 19th November, 1929.

Sanitary District.	Address of Welfare Centre.	Day and Time of Meeting.	Medical Officer in Charge.
Rural—			
Hendon	Edgware—Congregational Church Hall.	Friday ... P.M. 2.30 ...	Dr. Burn.
	Harrow Weald—Memorial Hall	Thursday ... 2.30 ...	Dr. Burn.
	Headstone—St. George's Church Hall.	Tuesday ... 2.30 ...	Dr. Burn.
	Pinner—Free Church Lecture Hall, Payne's Lane.	Friday ... 2.30 ...	Dr. Norrington.
South Mimms ...	Potters Bar—Village Hall ...	Wednesday 2.30 ...	Dr. Daniel.
	South Mimms—St. Giles's Parish Room	Thursday ... 2.30 ...	Dr. Daniel.
Staines	Ashford — Wesleyan Church School Room, Clarendon Road.	Thursday ... 2.30 ...	Dr. Wilson.
	*Ashford Common—Primitive Methodist Church Room.	Wednesday 2.30 ...	Dr. Wilson.
	†Bedfont—Public Hall, New Road.	Monday ... 2.30 ...	Dr. Wilson.
	Hanworth—Village Hall ...	Friday ... 2.30 ...	Dr. Wilson.
	Harlington—Village Hall, Cherry Lane.	Tuesday ... 2.30 ...	Dr. Moir.
	Shepperton Green — Council School.	Monday ... 2.30 ...	Dr. Heddy.

* Opened on 25th September, 1929.

† Opened on 11th November, 1929.

Information as to the attendances at welfare centres and the visits paid by the health visiting staff of the County Council to expectant mothers and children under school age at their own homes during the past five years is given in the table on page 100. Especially notable is the great increase in the number of new attendances made by expectant mothers, following the establishment of the special ante-natal sessions mentioned above. The effect of efficient ante-natal supervision in diminishing the risks incurred by women during pregnancy and parturition has already been referred to, and the increase in the number of expectant mothers attending the various centres is a matter for congratulation.

It should also be noted that in spite of the considerable number of new welfare centres opened during the year, the average attendance of infants and children per session has again risen and it appears that the demand for the expansion of the existing services has by no means been overtaken.

Attendances at Welfare Centres—Home Visits by Health Visitors.

	1925.	1926.	1927.	1928.	1929.
Welfare Centres—					
Number of sessions held	1,166	1,417	1,482	1,549	1,634
New cases attending—					
Expectant mothers	150	270	303	388	614
Infants under 1 year of age	1,044	1,293	1,228	1,542	1,976
Children (1 to 5 years)	523	715	713	694	945
Total attendances made—					
Expectant mothers	1,215	1,432	1,699	1,876	2,190
Mothers attending with infants	26,769	31,799	34,007	41,186	46,317
Infants	16,610	20,280	20,811	27,104	31,661
Children (1 to 5 years)	20,161	22,714	25,346	28,369	28,974
Total attendances	64,755	76,225	81,863	98,535	109,142
Average attendance of infants and children each session	31·54	30·34	31·15	35·81	37·11
Home visits made by Health Visitors—					
Ante-natal visits	1,846	1,941	2,483	2,415	2,559
Visits to infants under 1 year	13,464	13,090	13,857	16,779	18,432
Visits to children (1 to 5 years)	17,901	17,655	19,501	21,184	19,921
Total home visits	33,211	32,686	35,841	40,378	40,912
Total number of visits to individual families	21,823	21,545	23,991	27,972	30,543

Coincident with the increased attendances at welfare centres during the year, there has been an increase in the amount of dried milk, &c., issued at the centres. The following table affords information as to this, but it may be added that although the cost price of issues has increased by over £600, as compared with last year, there is an actual reduction of £10 in the nett cost to the County Council.

1929-30.	Amount lbs.	Cost Price.	Contributed by Mothers.	Charge on Scheme.
		£ *s.* *d.*	£ *s.* *d.*	£ *s.* *d.*
Dried milk	23,634	1,825 7 0	1,544 7 3	280 19 9
Virol or similar substance	4,071	226 17 8	238 14 5	11 16 9
Cod-liver oil, malt, &c.	5,131	198 17 11	140 14 11	58 3 0
Fresh milk	—	1 078 17 3	10 10	1,078 6 5
	Totals	3,329 19 10	1,924 7 5	1,405 12 5

Dental treatment.—Expectant and nursing mothers and children below school age in need of dental treatment on account of oral sepsis or dental caries are referred to one of the dental clinics established by the Middlesex Education Committee.

In certain districts within the elementary education area of the County Council, which are autonomous in respect of maternity and child-welfare services, arrangements are in existence whereby expectant and nursing mothers and children under school age referred from the local welfare centre receive treatment on agreed terms at the clinics established by the County Council for the dental treatment of school children. Such a system in respect of children under school age has been in force in Teddington for several years past, and during 1929, upon the request of the local district councils agreements were entered into in respect of Southgate and Southall-Norwood; these, however, included the treatment of mothers, as well as children. In Southgate the scheme came into operation on 11th November, 1929. In Southall-Norwood,

owing to the death of the Medical Officer of Health, some delay has occurred, and at the close of the year the scheme had not come into operation.

As will be seen from the following figures, this branch of work now has attained considerable dimensions.

——	Mothers.	Infants.*
Number inspected	236	148 (*19*)
,, of attendances made	1,066	215 (*30*)
,, treated	193	146 (*18*)
,, extractions (gas) ...	671	154 (*24*)
,, ,, (local anæsthetic)...	413	153 (*27*)
,, other treatment ... (fillings, &c.).	596	242 (*20*)
,, dentures completed...	185	—

* The figures in brackets, which are included in the total, relate to children of pre-school age residing in the Urban Districts of Teddington and Southgate.

The sum contributed towards the cost of dental treatment, including the supply of dentures, during the *financial* year 1929-30, was £198 13*s.* 7*d.*, whilst the actual cost of the dentures was £168 12*s.* 3*d.*

Treatment of Ophthalmia Neonatorum.—The scheme of the County Council for the treatment of ophthalmia neonatorum, occurring in infants living in the maternity and child welfare area for which the County Council is responsible, provides for :—

(1) The admission of infants suffering from the disease, accompanied by their mothers, to St. Margaret's Hospital.

(2) The domiciliary nursing of cases.

Two infants suffering from ophthalmia neonatorum were admitted to the hospital during 1929. Both recovered without injury to vision. Three cases were nursed

in their homes by the County Council's health visitors. All recovered, and no injury to vision resulted from the infection in any case.

Treatment of Puerperal Fever and Puerperal Pyrexia.—The scheme for the treatment of the above conditions occurring in women resident within the County Council's maternity and child welfare area, includes the following provisions :—

(1) The appointment of J. M. Wyatt, Esq., F.R.C.S., Obstetric Physician to the Out-patient Department, St. Thomas's Hospital, to act as Consultant Obstetric Physician on behalf of the County Council when a second opinion is required.

(2) The bacteriological examination of specimens of lochia or blood at the Lister Institute of Preventive Medicine.

(3) The reception of cases of puerperal infection into the special department of the North-Western (Metropolitan Asylums Board) Hospital under the care of Dr. Wyatt.

(4) The provision of trained nurses for the home nursing of cases of puerperal sepsis.

Dr. Wyatt's advice was sought on 13 occasions during the year and in 10 instances, in consultation with the medical practitioners who had notified the cases, he visited at their homes the patients concerned. Under the County Council's arrangements with the late Metropolitan Asylums Board, nineteen women were admitted to the wards reserved for the treatment of puerperal infection at the North-Western Hospital, under the care of Dr. Wyatt. Of these, 16 made good recoveries and were discharged. Two were transferred to general hospitals for further medical or surgical treatment and one died.

Provision of Midwives.—The two whole-time midwives appointed by the County Council have continued to practise in the districts of Yiewsley and West Drayton and Ruislip-Northwood.

With the approval of the Ministry of Health, the County Council made grants of £25 each to the Harmondsworth Nursing Association and the Stanwell Nursing Association and £50 to the Kingsbury Nursing Association in respect of midwifery services provided by those bodies in the districts which they serve. The County Council have also agreed to pay to the Elstree Nursing Association a capitation fee of 15*s.* for each Middlesex case attended in labour by nurses employed by the Association.

Maternity Beds.—In addition to the arrangements for the treatment in hospital of cases referred from the Central Consultative Ante-Natal Clinic, and of cases of puerperal fever and pyrexia, the Minister of Health, towards the close of 1928, signified his approval of the County Council arranging for the admission of women for their confinements to the Redhill Hospital, Edgware, in cases where the home conditions were unsatisfactory. It was not, however, found necessary to make use of this arrangement during 1929.

Central Consultative Ante-Natal Clinic.—Regular monthly sessions of the Central Consultative Ante-natal Clinic have continued to be held during the year, and the number of attendances has grown to such an extent that, on the basis of monthly sessions, the clinic is now working to full capacity. Sixty-nine women were referred to the clinic in the course of the year (a very considerable increase upon the number attending in 1928), and made a total of 84 attendances. This number represents an average of seven women per session, which is as large a number as can conveniently be examined and dealt with in the course of an afternoon, whilst on one occasion the number reached the total of 12. The great majority of the cases seen had been referred from one or other of the County Council's local welfare centres, but in a few instances cases were sent directly to the clinic by medical practitioners in the County Council's maternity and child welfare area.

A large proportion of the women seen had been referred by reason of contraction or deformity of the pelvis. This condition calls for a high degree of skill and experience on the part of the obstetrician in coming to a correct decision as to whether the woman may safely be permitted to remain

at home for delivery to take place by natural means, or whether admission to hospital and possibly obstetrical interference is called for. Of the number of cases of small or deformed pelvis examined at the clinic, two were referred to St. Thomas's Hospital for further examination under an anæsthetic, and five were admitted to the maternity wards of the Hospital for their confinement.

Five cases of toxæmia of pregnancy were seen at the clinic ; one of these was admitted to St. Thomas's Hospital for investigation of renal function, and after a short period of observation was permitted to return home. A second was not severe and responded to simple dietetic measures and rest at home. The other three, one of moderate and two of considerable degree of severity, were admitted to St. Thomas's Hospital, where induction of premature labour was performed and a living child resulted in each case. One of the women concerned, when seen at the clinic, was in a condition rapidly approaching eclampsia, with high blood-pressure, marked albuminuria and other signs of renal insufficiency. From experience of similar cases it is safe to say that but for prompt and skilful obstetrical treatment, death of the child was practically certain and death of the mother by no means unlikely. The other two cases referred to as having been admitted to St. Thomas's Hospital were not so rapidly progressive, but it is certain that the measures taken, whilst saving the child in each case, safeguarded the mother from further permanent renal damage.

Two cases of pregnancy complicated by heart disease were referred to the clinic ; one of these, in which there was evidence of deficient compensation, was admitted to St. Thomas's Hospital for confinement.

Several cases of malpresentation were seen. In two instances external version was performed at the clinic and in two other cases women were referred to St. Thomas's Hospital, where version was carried out under an anæsthetic.

In addition to the cases already mentioned, two women were admitted to St. Thomas's Hospital for observation and treatment of abnormal conditions complicating pregnancy, one other was examined by X-ray to confirm the

presentation of the fœtus, and two were sent to one of the out-patient departments of the Hospital for further investigation. In three instances specimens of morbid material were submitted to the Clinical Research Association for bacteriological examination.

The value of the Central Consultative Ante-natal Clinic in the County Council's scheme of maternity and child welfare is indicated in the foregoing statements, and the increased number of women attending, as well as the fact that the proportion of cases which were found to present obstetrical or gynæcological features of a serious character also continues to increase, is the best evidence of the useful position the County Council's clinic fills in the campaign against maternal mortality and morbidity.

Investigation of maternal deaths.—Reference was made in last year's annual report to the appointment by the Minister of Health of a Committee to investigate the subject of maternal mortality and to the fact that the County Council was awaiting the approval of the Minister to the appointment of Dr. Wyatt as their expert investigator of cases occurring in the maternity and child welfare area of the County Council. In April the requisite approval was received and up to the end of 1929 Dr. Wyatt enquired into three cases of maternal death. In connection with these he furnished detailed reports and, in accordance with the request of the Minister of Health, these reports were submitted to me for transmission to the Minister and consideration by the Maternal Mortality Committee.

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